

BUSINESS WEEK

APR. 17, 1948



Paul G. Hoffman: Economic developer — now on a world scale (page 6)

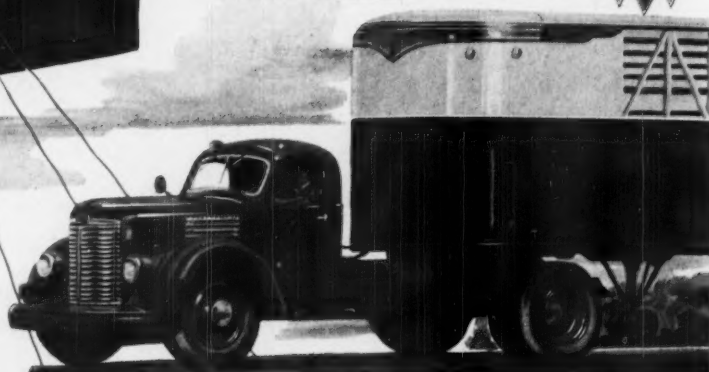
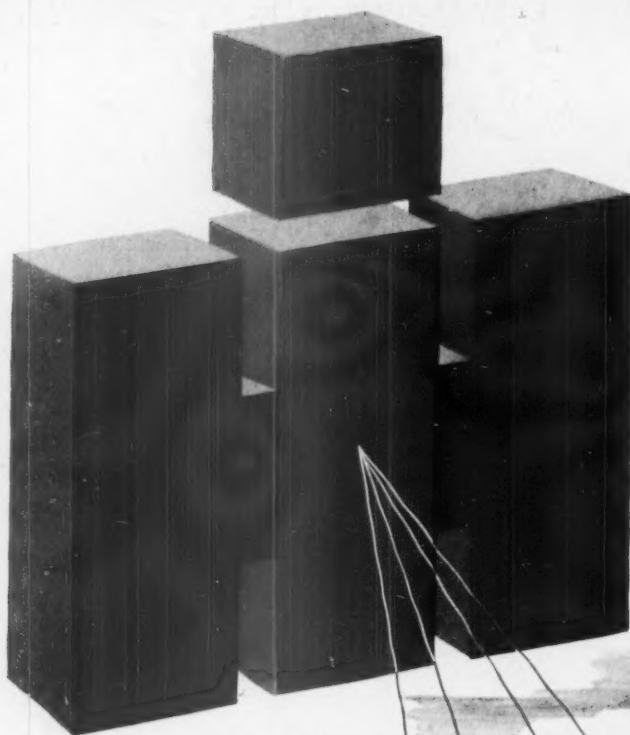
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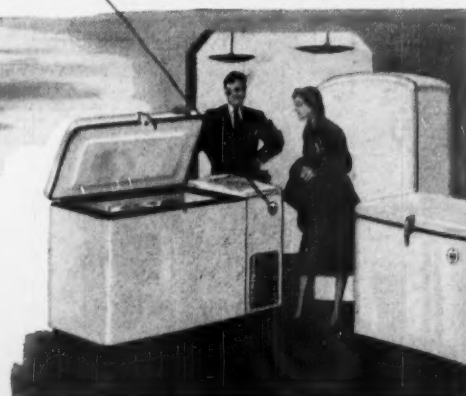
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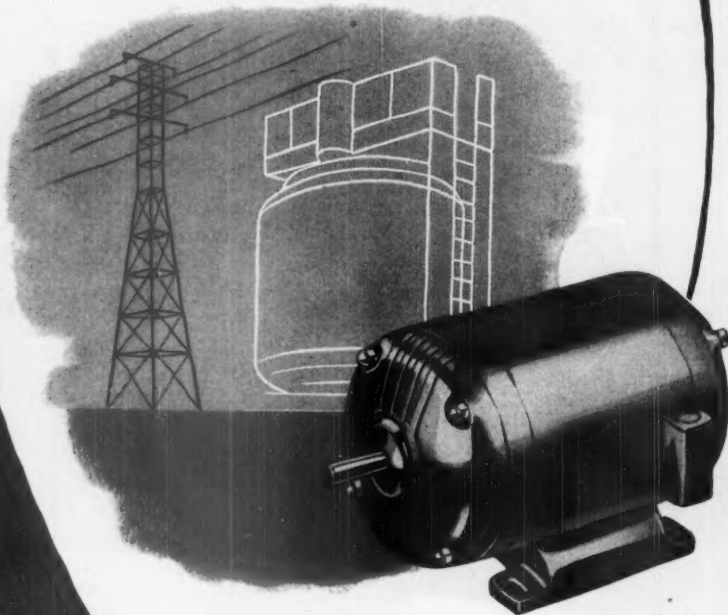
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BUSINESS WEEK • Apr. 17, 1948



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It's typical of Remington Rand pacemaking . . . pacemaking that, in the past 40 years, has contributed these and many other punched-card advances:

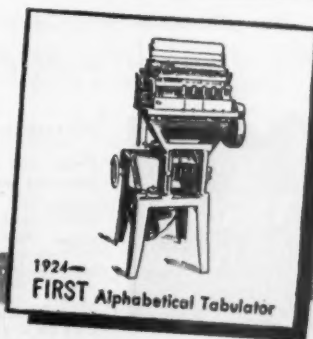
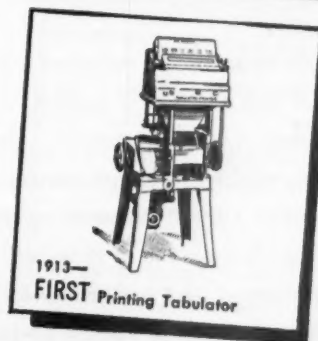
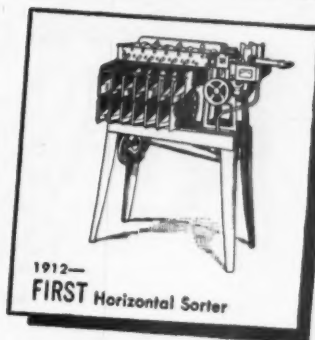
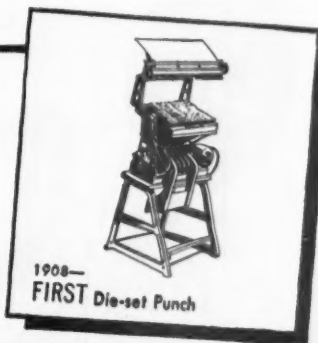
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THE COVER

Paul Gray Hoffman, former president of Studebaker Corp., will be 57 years old on Apr. 26. But he won't be taking time out to celebrate it—or his appointment as head of the Economic Cooperation Administration (BW—Apr. 10'48,p19). He'll be neck-deep in work in a four-room suite on Pennsylvania Ave.'s rococo old State-War-Navy Bldg.

• **Greater Problems**—Hoffman is the man who has to make ECA tick. In doing that, he's up against greater problems than those ever faced by Gen. John J. Pershing, who for many years had a sort of honorary office in the same four rooms.

Hoffman is charged with piloting this country's multi-billion-dollar plan of global aid to the non-Communist world. Because of the scope of the job—at home and abroad—he will be wielding more power than any other public servant in peacetime.

• **Familiar Figure**—Tanned and alert, the new member of the Truman cabinet looks 10 years younger than he actually is. Although he was never on a government payroll, Hoffman is a familiar figure in Washington.

As chairman of the Committee for Economic Development, a group of businessmen set on maintaining high levels of employment and production, he's no stranger on Capitol Hill. And he was one of the 16 "distinguished citizens" on the President's Committee on Foreign Aid.

• **Career**—Hoffman began his career in the automobile business in 1909, as a porter for the Chicago distributor of the Halladay car. Two years later, he became a Studebaker salesman in Los Angeles. In 1917, after his promotion to manager, he joined the Army.

He returned to selling Studebakers in Los Angeles, managed to keep his agency in the black while the corporation itself sloshed in red ink. That won him the job of vice-president in charge of sales, in 1925. Ten years later, he became president.

BUSINESS OUTLOOK

BUSINESS WEEK
APRIL 17, 1948



Here's how a businessman can assess the impact of the preparedness drive on materials, manpower, and prices:

(1) Watch what the armed services spend money for—not how much they are going to spend over all (ships and tanks take a lot more steel than rifles).

(2) Beyond that, keep an eye on how fast all phases of the program will speed up.

Congressional committees this week proved that they propose to move fast on preparedness. A House group acted quickly on Air Force funds. On the Senate side, the new draft was shaping up.

But quick action—if it comes when the bills hit the floor—need not necessarily mean much competition with civilian goods before 1949.

Spending on air power seems certain to go forward well ahead of previous schedules. But that doesn't mean a lot of planes all at once.

Much money will go into perfecting present aircraft. Some also will go into still newer types.

Even the 70-group Air Force doesn't mean a great number of ships.

W. Stuart Symington, Air Secretary, told the House Armed Services Committee that 70-group strength calls for 1,320 new war planes in the next year, 2,174 by 1950. Navy needs are additional.

That will take aluminum and steel, of course, but no great quantity. Peak output topped 94,000 planes in a single year during World War II.

Guided missiles will use a good part of military expenditures. That means a certain amount of manpower—but not a great deal of materials. Chief squeezes will be on rare minerals for metal-hardening.

Manufacturers who will provide food, clothing, and shoes for the enlarged armed forces will need a lot of civilian orders to tide them over until military business begins to compete for goods.

Nevertheless, market conditions now show that the civilian orders will be forthcoming. Customers are afraid to wait for prices to drop.

This buying psychology may not last, to be sure. In that case, a few lines might have a bit of a shakedown. But there is nothing in sight now to cast much of a shadow over business prospects.

Public feeling clearly is that we may soon face "limitation orders"—such as cut back motor car, refrigerator, and other output before Pearl Harbor.

This is evident in the decided upswing in demand for used cars. It may soon become evident in buying of other consumers' hard goods.

Reports come in, too, of people hustling to buy or build homes. This cannot yet be called a trend. But it may become quite a business factor.

Numerous factors almost make a rising price trend sure for the remainder of this year:

Aid to Europe: ECA will bolster exports; the excess of exports over imports represents a direct cut out of home supplies.

Armaments: Military spending will rise gradually into 1949.

Wages: Third round hikes already are adding to purchasing power.

Taxes: Wage and salary workers will have a little more money in the

BUSINESS OUTLOOK (Continued)

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weekly pay envelope after the withholding rate is cut May 1. And there is no strong disposition to save at the present time.

Deficits: Lower federal tax rates, higher outlays may put the Treasury in the red during the last half of 1948. (Rising prices, on the other hand, mean rising national income; that is money for Uncle Sam to tax.)

Best guess: All these together—and their impact isn't exactly simultaneous—probably spell creeping inflation (or worse) this year.

•
Inflation dangers can grow early in 1949. Arms spending will be stepping up to the maximum rate permitted by appropriations.

Deficit spending won't be large in the first 1949 quarter, though. If business is still booming, as seems likely, the Mar. 15 tax date will see the Treasury temporarily rolling in dough.

But relations with Russia, not tax receipts, hold the inflation key.

If it's necessary to spend more and more on arms, or if we start lending armaments to Europe, then early 1949 may be the time to start dusting off the old price-and-production controls.

•
Steel output lost for lack of coal will prove a price booster.

When the coal strike started, it looked as if steel was just beginning to catch up with demand. Since then, all metalworking-industry appetites have been whetted by prospective armament orders.

Thus steel lost cannot be recovered. The industry was about at the practical limit of its capacity before the coal stoppage; it can't push high enough anytime this year to recover lost ground.

Steel users, meanwhile, have been depleting their inventories.

•
No matter how soon coal starts to move again, it will take two or three weeks to get steel output up where it was (page 20).

Lost steel, through this week, is estimated at 1.4-million tons by Iron Age. This will climb several hundred thousand tons more.

Considering that the industry averaged nearly 1.7-million tons a week throughout the first quarter of 1948, that loss isn't huge. But it is painful when it means the difference between balance and shortage.

•
Higher coal costs plus a pending wage boost just about clinch higher prices on steel products.

But even before that comes, steel will affect auto makers' costs.

Henry Ford II this week confirmed forecasts that his 1949 cars will have higher price tags. One reason: Depleted steel inventory has forced a downward revision of production schedules.

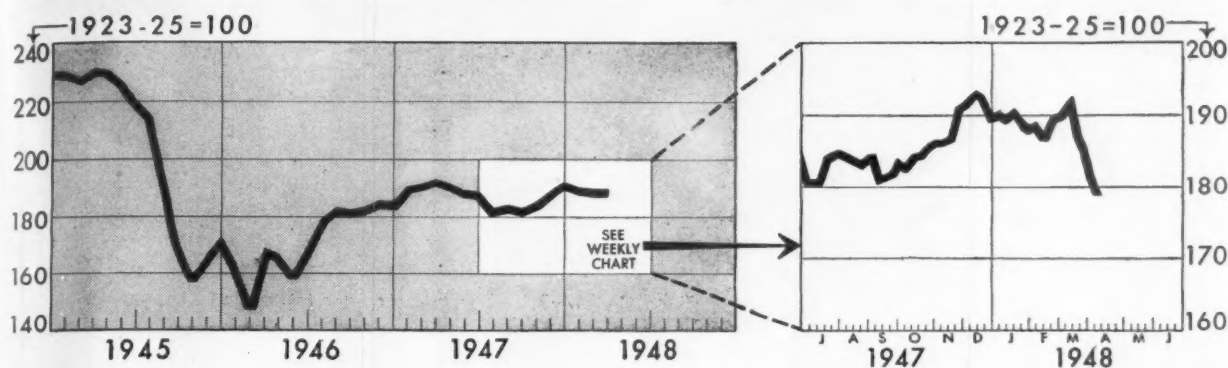
And auto producers still have their own wage issues to settle.

•
Rising confidence in business and prices removes two uncertainties:

Inventories: Manufacturers added another \$300-million to stocks in February. Value of inventory now is about \$24.3-billion. If prices rise, this is an investment as well as a manufacturing necessity.

Capital outlays: There's even less reason than before to expect that the capital boom (page 28) is going to end any time soon.

FIGURES OF THE WEEK



Business Week Index (above)

\$ Latest Week	Preceding Week	Month Ago	Year Ago	1941 Average
*178.7	†181.3	192.8	191.3	162.2

PRODUCTION

Steel ingot operations (% of capacity)	71.3	†83.2	97.5	94.5	97.3
Production of automobiles and trucks	102,950	†105,132	114,689	97,893	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	\$24,795	\$22,534	\$21,692	\$17,758	\$19,433
Electric power output (million kilowatt-hours)	5,033	5,037	5,285	4,620	3,130
Crude oil (daily average, 1,000 bbls.)	5,377	5,389	5,265	4,913	3,842
Bituminous coal (daily average, 1,000 tons)	356	353	2,173	798	1,685

TRADE

Miscellaneous and L.C.L. carloadings (daily average, 1,000 cars)	82	83	81	85	86
All other carloadings (daily average, 1,000 cars)	28	28	51	37	52
Money in circulation (millions)	\$27,833	\$27,780	\$28,006	\$28,250	\$9,613
Department store sales (change from same week of preceding year)	-12%	+17%	+5%	+17%	+17%
Business failures (Dun & Bradstreet, number)	79	91	102	59	228

PRICES (Average for the week)

Spot commodity index (Moody's, Dec. 31, 1931=100)	418.7	412.4	406.8	414.1	198.1
Industrial raw materials (U. S. Bureau of Labor Statistics, Aug., 1939=100)	271.6	270.5	267.7	280.0	138.5
Domestic farm products (U. S. Bureau of Labor Statistics, Aug., 1939=100)	375.2	366.7	370.7	340.7	146.6
Finished steel composite (Steel, ton)	\$81.14	\$81.14	\$81.14	\$69.82	\$56.73
Scrap steel composite (Iron Age, ton)	\$40.33	\$40.25	\$39.75	\$34.75	\$19.48
Copper (electrolytic, Connecticut Valley, lb.)	21.500¢	21.500¢	21.500¢	21.500¢	12.022¢
Wheat (Kansas City, bu.)	\$2.46	\$2.44	\$2.43	\$2.71	\$0.99
†Sugar (raw, delivered New York, lb.)	5.40¢	5.40¢	5.38¢	6.19¢	3.38¢
Cotton (middling, ten designated markets, lb.)	37.15¢	35.93¢	34.01¢	34.36¢	13.94¢
Wool tops (New York, lb.)	\$1.785	\$1.794	\$1.817	\$1.550	\$1.281
Rubber (ribbed smoked sheets, New York, lb.)	22.88¢	22.20¢	19.70¢	24.00¢	22.16¢

FINANCE

90 stocks, price index (Standard & Poor's Corp.)	121.4	120.5	111.1	114.7	78.0
Medium grade corporate bond yield (30 Baa issues, Moody's)	3.47%	3.50%	3.53%	3.16%	4.33%
High grade corporate bond yield (30 Aaa issues, Moody's)	2.78%	†2.79%	2.84%	2.53%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average)	1½%	1½%	1½%	1½-1½%	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	1½%	1½%	1½%	1%	1-1½%

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks	45,975	45,340	47,581	45,011	††27,777
Total loans and investments, reporting member banks	62,869	62,221	64,128	63,111	††32,309
Commercial and agricultural loans, reporting member banks	13,334	14,417	14,594	12,269	††6,963
Securities loans, reporting member banks	1,589	1,666	1,727	1,876	††1,038
U. S. gov't and gov't guaranteed obligations held, reporting member banks	35,214	34,433	36,193	39,034	††15,999
Other securities held, reporting member banks	4,321	4,335	4,281	4,105	††4,303
Excess reserves, all member banks	710	600	930	886	5,290
Total federal reserve credit outstanding	21,085	21,607	21,326	22,893	2,265

*Preliminary, week ended April 10th.

‡Ceiling fixed by Government.

§Date for "Latest Week" on each series on request.

†Revised.

††Estimate (B.W.—Jul.12'47,p.16).



THIS MOTHER LEARNED WHAT EMERGENCY LIGHTING MEANS

Speeding through the storm was bad enough. Then came the blinding flash of lightning that plunged the entire area into darkness. But up ahead, a single building stood out like a beacon. It was the hospital. And when they reached it what a relief to find the lights still on.

This hospital was safeguarded against lighting failure, which can happen despite all precautions of utility companies. It was safeguarded by an emergency lighting system, powered by Exide Batteries which instantly and automatically

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WASHINGTON OUTLOOK



YOUR NEXT PRESIDENT: Harold E. Stassen. Two months before Philadelphia, six months before Election Day, it looks as if you can say that.

There is more to Stassen's strength than just the popular enthusiasm of Wisconsin and Nebraska.

Stassen's campaign is being run along regular political-machine lines. It's built around a crew of energetic young men with a clear record as Republicans—plus a core of experienced workers on the state chairman-national committeeman level. Stassen is carefully steering clear of the "Democrats-for-Stassen" sort of thing.

In the two popular primaries, Stassen has shown that he already has his chain telephone callers (five friends calling five friends), his Paul Revere riders, his doorbell pushers.

For the next two months, his job is to firm up his connections with the old-line party organization—to prevent being dealt out at Philadelphia by the professionals.

As the new man to beat, Stassen now is threatened with this sort of thing: A couple of weeks ago, Herbert Hoover tried to get Dewey and Taft to commit themselves to a deal. If neither of you can make it, Hoover said, in effect, you'll see to it that the nomination goes to someone we all agree is regular. Hoover wouldn't call Stassen regular, the way he would speaker Martin.

Neither Taft nor Dewey bought Hoover's proposal.

It's now apparent there will be a three-way split on the first ballots at Philadelphia.

Stassen's coming up from far behind will have the makings of a bandwagon. Favorite-son delegations—California, Michigan, Pennsylvania, and the rest—all will want to be the first aboard. And then Taft's southern strength will melt.

SO WHAT WILL WASHINGTON be like next year? Some of the tone of a Stassen Administration can be visualized already.

It will be an Administration in which Congress counts. Stassen's record as governor of Minnesota shows he's not the kind who rides down his legislature.

As a matter of fact, Stassen might find himself stymied by Old Guard domination of Congress. Certainly, the Senate will be run by Taft and

Bridges, neither of whom think as Stassen does.

You can't tell about the House situation until after election. Stassen might be able to put enough of his own people in to control it.

Foreign policy would be fundamentally a continuation of the present bipartisan line—economic aid, military backup—with perhaps more flexibility and imaginative snap than Truman has been able to give it.

Domestically, the basic thing businessmen need to know is this: How far will government go in applying controls to an economy which obviously will be running all out, probably under some degree of war pressure?

For a clue, you might go back to what Stassen told Stalin just a year ago:

"I believe we can regulate our capitalism and stabilize our production and employment. . . . Through learning the lessons of 1929 and the 1930's we should have a successful, regulated, though not a monopolistic capitalism."

Stalin's reply: "The government must be vested with wide powers to do that. The government must be strong and adopt broad measures."

Stassen: "Yes."

TAFT'S PEOPLE are tempting Vandenberg supporters with this: why don't you throw in with us, get Taft and have Vandenberg, too?

What they're saying is that Taft would name Vandenberg Secretary of State. In the Taft-Vandenberg team that has been running the Senate, Taft has left foreign affairs to Vandenberg. And the Taft people argue that you might as well move the team over to the executive side, intact.

Vandenberg will be Secretary of State next year anyway—unless he or Dewey becomes president. Dewey's likely choice is John Foster Dulles.

As a matter of fact, you can already line up several other places in next year's G.O.P. cabinet:

Rep. Clifford Hope of Kansas will be Secretary of Agriculture when Republican wheat replaces Democratic cotton.

California's Gov. Warren, a dark-horse candidate for the presidency, is an odds-on bet for attorney-General. He considers the job a stepping stone to the Supreme Court: Any candidate would be happy to trade it to him for California's convention delegates.

MANPOWER REQUIREMENTS for handling Truman's \$3-billion step-up in military spending

WASHINGTON OUTLOOK (Continued)

are figured at around 900,000 by Arthur Hill's National Security Resources Board.

The figure breaks down this way: 350,000 more men in uniform; 125,000 more civilian federal employees, 400,000 more industrial jobs.

Not all of this manpower will have to come out of the nation's labor force. Many of the youngsters to be drafted don't have jobs now.

• Gen. Clay wants German art treasures, now on show in Washington, returned to Germany without touring the U. S. first. He fears psychological effects on Germans if return of the paintings is delayed.

• Trust-buster Sonnett is likely soon to be named by Truman to a federal judgeship in New York. If it happens, Sonnett's assistant, John Baecher, will move up.

A COMMUNICATION

A baffled reader took us to task this week.

"All I want to know," he writes, "is whether to brace myself for another war. You seem to think there won't be one.

"But lately you tell me that 'things smell of war' over Italy (Mar. 6); that 'men, not money' is Truman's bluff (Mar. 20); that 'it's not a businessman's war' (Mar. 27); that lend-lease for Europe (Apr. 3) or maybe a military alliance (Apr. 10) is coming.

"Is there any consistency to all this? Aren't you actually reporting an inexorable drift toward war while still crying, 'peace, peace'?"

This letter shook us a little—enough to make us take a fresh look. And when we finished, it seemed worthwhile, in this week before Italian elections, to record our answer.

You have a point, of course (we wrote). U. S. policy this spring has been laboriously forged, day by day. And this weekly interpretation from Washington has had to criss-cross with it. But over-all, it adds up thus:

Truman and Marshall are committed to the calculated risk that Stalin can be bluffed into stopping without war. They believe this on the strength of their conviction that Russia doesn't want a real war, probably could stand one even less than this country could.

Also, domestically, Truman is scared of inflation and the inflationary effects of a munitions program actually scaled to preparation for war. That's why he held down Forrestal's request for more billions—a decision which has Congress and the military seething.

Truman's reasoning: If the "men, not money" bluff works, we won't need a lot of munitions. And unless we have to, we can't afford the impact of more munitions production on the domestic economy.

This is risky business, of course; a bum guess or two could mean disaster.

Furthermore, we, personally, don't see anyone, anywhere, actually working for peace. Everyone is trying to checkmate the other fellow, just short of war.

All the same, after reviewing our analysis, we don't feel a need to change our view that in all probability there is no big war ahead.

We've said repeatedly—since last November—that all this is postwar jockeying, not prewar squaring off. We still think so.

We've said also, each time, that in this kind of high-stakes poker, a mistake can lead to disaster. That's still the case.

We've analyzed for businessmen why the present situation doesn't mean munitions orders or controls for him—and won't, until Truman knows whether his bluff works or not.

And, finally, we've pointed to the next stacks of chips that may be needed in this no-limit game: military alliance and lend-lease. And we've explained how these would change the situation at home, bring on some controls, more inflation.

There are two things we have not done:

(1) We haven't predicted whether Truman's bluff will work (but we have recorded the studied opinion of civilian Washington, and our own concurrence, that the odds are it will).

(2) We haven't ventured into the realm of what "ought" to be; whether Truman's policy is "the right one."

As to the first point, no one dare predict with finality. And as for point two, that never has been the role of the Washington Outlook; we don't think it should be.

Our job is to tell you what things mean as they are, as best we can. What they should be is your job—as a citizen and voter—to decide.



The importance of accident prevention* is shown by the *Case of the Slippery Steps.* [**One of six major ways we save money for our clients*]

Not long ago a J&H client, operating a fleet of delivery trucks, reported an increasing number of accidents to its drivers—broken ribs, twisted ankles and other injuries. Result—impaired operating efficiency, increased insurance costs and human discomfort—if not worse.

One of our safety engineers was sent to investigate. He found that most of the accidents occurred during early morning deliveries, as drivers lost their footing on the wet and slippery steps. His recommendation was quick and practical: Cover the steps with a non-skid material he knew had been used on PT boats during the war. This was done, and accidents and claims were promptly reduced.

To our trained technician this was a simple routine problem, and to you the solution may sound obvious. But that's not the point. We know from experience

that equally obvious insurance leaks are being overlooked by thousands of business concerns every day! In the aggregate they add up to enormous and useless waste. Often the problem is not so simple, and calls for all the skill and experience of several of our service departments.

How many insurance mistakes, obvious or otherwise, do you suppose are costing you money right now—without your knowing it? Perhaps we could help you find out.

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BUYERS OF INSURANCE FOR COMMERCE AND INDUSTRY SINCE 1845

LET'S PUT IT THIS WAY...

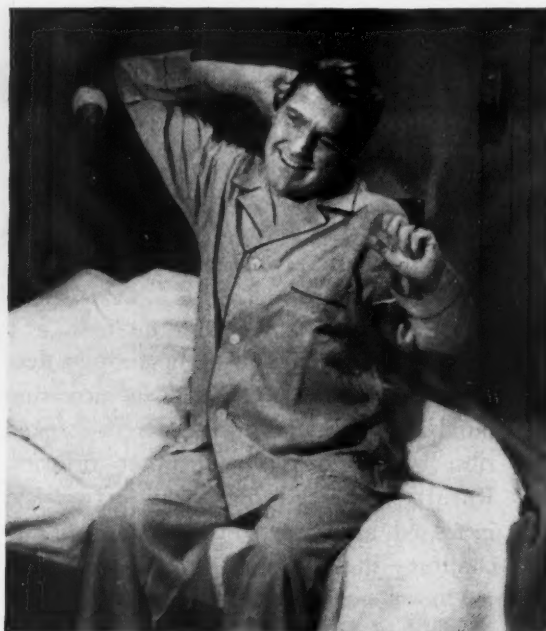
Can You Afford Not To?



1. Suppose you've got a business trip coming up, and you'd like to clean up your work on the way. When you go Pullman the porter will be glad to set up a table for a desk that will make your accommodations an office on wheels.



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3. Suppose you want to be fresh and alert for an important appointment or conference next morning. Your big, comfortable Pullman bed gives you the sound, undisturbed sleep you need to be at your best, both physically and mentally.



4. Suppose it's imperative for you to be there on a certain day. When you go Pullman you arrive—on dependable railroad schedules—right in town, convenient to everything.

In the face of this combination of advantages no other form of travel offers, can you afford not to go Pullman?

IT'S GOOD BUSINESS TO
Go Pullman
THE SAFEST, MOST COMFORTABLE WAY
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WELFARE FUND TRUSTEES Styles Bridges (left) and John L. Lewis (right) outvoted Ezra Van Horn (center) to put \$100-a-month pensions into effect for coal miners.

Mine Pensions: Costly Peace?

Many other industries now face stepped-up union campaigns for employer-financed retirement plans. The coal peace isn't firm, either; a possible new strike in July would really hurt.

Few sighs of relief greeted John L. Lewis' miners as they trudged back to work this week. The resumption of digging got industry off the hot seat just in time—but not without stirring new and pressing questions:

HOW LONG will coal production continue unbroken this time?

WHAT EFFECT will the Lewis settlement have in the broad field of industrial labor relations? Specifically, what of pensions in general from now on?

• **Another Lewis Victory**—Management could be sure of only one thing: either by some shrewd labor relations maneuvering or by a political coup, Lewis had ended his four-week shutdown with a new victory.

Court proceedings before Judge T. Alan Goldsborough, under way at mid-week, were anticlimactic. Their importance was mainly in the psychological effect that a poke at Lewis would have in defending a battered Taft-Hartley law. Undeniably, the T-H antistrike provisions had come through the Lewis

about the worse for wear. Invoking T-H hadn't solved a single issue. The miners went back to work not because of the law; events entirely outside the administration's slow legal crackdown prompted them.

• **What Happened**—Those events will be widely debated. Here's the sequence:

(1) House Speaker Joseph W. Martin called Lewis and Ezra Van Horn, soft coal operators' spokesman, to the Capitol. He talked to them for 13 minutes, then told surprised reporters: Lewis and Van Horn finally had agreed on a third—neutral—welfare fund trustee. They had accepted Sen. Styles Bridges, New Hampshire Republican, as umpire.

(2) In two short meetings of the trustees, issues which had been debated bitterly since last July were settled—or glossed over. Sen. Bridges voted with Lewis to put "tentative" \$100-a-month pensions into effect at once. Van Horn dissented; but under terms of the coal contract, operators are bound by the majority vote.

(3) The pension agreement got the

miners to end their "voluntary" idleness.

• **Politics**—But there seemed to be little doubt that politics—not economics—had brought on this settlement. Lewis, a Republican, obviously had flirted with two top Republicans to put one over on Truman. His aim: to crimp the T-H law, which Truman was invoking to the hilt.

Thus came this ironic situation: Truman was trying to settle the coal strike by using the Republican-sponsored T-H procedure; Martin and Bridges abetted Lewis in getting around a law they endorse.

Martin and Bridges had this answer: They saw a chance for settling a vital strike by direct action; it wouldn't have been in the best public interest if they hadn't tried it.

• **What Lewis Turned Down**—In all, Lewis seems to have settled for less than Thomas E. Murray, neutral trustee who resigned before the strike, offered. Murray's plan was to transfer \$20-million of the present \$30-million welfare fund to a special pension account. From it, \$100 a month would have been paid to United Mine Workers members, employed in mining, on retirement at 60 after 20 years' service. Miners who retired before June 30, 1942, would not be eligible. And if the drain on funds got too heavy on that basis, the eligibility date would move up; miners who retired after Jul. 1, 1947 (date of the agreement on a 10¢-a-ton royalty for welfare) would be taken care of first.

• **Other Points**—Murray, like Lewis, thought that members employed by



INTERMEDIARY Joseph Martin got operators and union together to end impasse

Coal Strike Cost Over a Million Tons of Steel

Industrial activity this week started to snap back like a tired rubber band from the month-long soft-coal shutdown.

• **Rail Restrictions Lifted**—One of the first signs of relief for business came at midweek, when the Office of Defense Transportation and the Interstate Commerce Commission suspended "until further notice" all restrictions on train service.

A 25% cut in coal for passenger and freight locomotives had been in effect since Mar. 21. A second 25% cut was to have gone into effect on Thursday this week. However, the embargo probably will be slapped on again if railroad coal supplies are not built up quickly.

• **Steel Hit Hard**—As usual, the steel industry took the biggest licking from the coal strike. The direct loss of steel by the end of this week was estimated to be about 900,000 tons of ingots—equivalent to about 675,000 tons of finished steel. And more will be lost before the industry snaps all the way back. Iron Age

estimates the total loss at 1.4-million ingot tons.

Although many miners started back to work early this week, most steel company mines remained closed. Evidently workers in the captive mines were waiting to be sure that court proceedings were finally settled before they began digging again.

Unusually large supplies of coal on hand at the beginning of the strike made it possible for steel mills to operate at fairly high levels while the miners were out. It took four weeks to bring the industry-operating rate down from 97.5% to 71.3% of capacity.

• **Quicker Than Last Time**—When all captive mines reopen, steel will be able to climb back to the pre-strike operating rate in less time than it took after the two 1946 coal strikes. Here's the timetable:

• **Cokeovens**: The heat has been kept on. So ovens should completely recover from the shutdown in one week.

• **Blast furnaces**: Three to four days will be required to get blast furnaces in condition to start making pig iron again. This time, of course, will have to be extended by another week where operators decided to reline furnaces while they were out of commission.

• **Soaking pits**: No trouble here. The soaking pits have only to be warmed, and they're ready for use.

• **Open hearths**: Two to three days will be required to get open hearth furnaces back to prestrike operating levels. Electric furnaces, of course, can be brought back into service more quickly.

• **Rolling mills**: No time will be lost getting rolling facilities back into action. They need no advance preparation in order to begin rolling steel.

Operations in the blast-furnace and open-hearth departments will be slow in the first few days. Therefore, it's likely that the industry will take about three weeks to get back to prestrike operations.

mine operators who didn't sign the contract should be covered anyway—even if their bosses hadn't kicked in to the fund. He did not agree with Lewis that pensions should be paid to all retired miners over 60, regardless of when they laid down the shovel.

Both Lewis and Van Horn rejected Murray's plan. Thereupon he resigned, criticizing both union and management as unreasonable.

• **Less Generous**—The new Bridges' plan isn't quite as generous as Murray's dead program. It gives \$100 pensions to U.M.W. members 62 years old (instead of 60) who have put in 20 years. Retirement must be after May 29, 1946, when the first welfare fund started (instead of after Jun. 30, 1942). And only \$5-million is to go into the pension account (instead of Murray's \$20-million).

Why Lewis signed so quickly on these terms is his own secret. It could be he didn't have time for bargaining—his date in court couldn't wait.

• **Tentative**—This plan is obviously stamped as "tentative", anyway. Its actuarial soundness is left for future determination. Pensions for miners employed by operators who don't contribute are left up in the air. Other details, too, are left for the future.

Further, the operators already are preparing court action against the pension plan as now set up. They interpret the T-H law to bar payments to workers

whose employers haven't added to the welfare fund kitty. Operators may try to enjoin all pension payments until a legal determination can be made of how many miners are qualified to get pensions.

• **Uncertainty**—That's why there's no guarantee that the coal peace will last. There's no final word yet on pensions.

The U.M.W. contract with soft coal operators runs only until July 1. The operators don't like the pension deal just worked out; they have warned that it will last only until then. After that, new contract clauses for royalties will have to be worked out.

Operators now plan to insist on some drastic changes in the Bridges-Lewis plan. It's equally sure that Lewis will demand at least one revision: a higher tonnage royalty rate.

• **Too Expensive**—Operators say the present 10¢ a ton can't cover pension requirements and also build up a reserve. Their statisticians figure the Bridges plan would cost between \$12-million and \$24-million the first year.

The operators wanted all the actuarial details worked out in advance of pension payments. Once started, payments—and qualifications for them—can't be tailored to fit financial resources without a hard fight.

• **Major Issue**—The fight over these matters is expected to be hotter than skirmishes over other 1948 contract

demands—higher pay, fewer hours, changes in working conditions.

It could easily send soft coal miners out of the shafts again for a long July 4th "holiday." If so, industry will be caught short of coal reserves; its plight will be much more serious than in the crisis just over; its bargaining position will be much worse (BW—Apr. 3 '48, p104).

• **Broad Effects**—In the broader field of labor relations, the Lewis settlement—as usual—presses heavily on existing patterns. And all this at the poorest possible time: Lewis reached his pension goal just as the National Labor Relations Board gave a new, strong impetus to pension-plan bargaining.

NLRB this week ruled that pension plans and retirement programs are among the items on which management must bargain—or be wide open to unfair labor practice charges (page 109).

• **Demands Coming**—Thus, it's reasonable to assume that management must now expect strong union demands for a pension plan that's big enough to stack up with what Lewis' miners got.

In steel, for instance, belief was growing this week that a token wage boost—say 10¢ an hour—won't be enough. The steel union has been trying for years to get a pension plan; it's on the agenda again now, of course (BW—Apr. 3 '48, p100). The union can—and probably

will—ask steel management this question: Why should coaldiggers in captive mines get \$100 monthly on retirement, while the same employer's steel puddlers get nothing?

• **Shifting the Balance**—Similar pension demands are pending in other contract negotiations—in electrical manufacturing, rubber, shipbuilding, for instance. So far, management apparently has held the high cards (BW—Apr. 10'48, p102). But now it looks as if Lewis and NLRB have handed the unions some aces.

AIRLINES' MAIL PAY RAISED

The prospects of profit this year are brighter for five major domestic airlines—thanks to a Civil Aeronautics Board decision last week. CAB-approved increases in mail rates are expected to boost the five lines' annual revenue by more than \$54-million.

The increases are based on a sliding scale; the biggest percentage hikes go to lines carrying the least mail. The new ton-mile rate for the first 2,500 ton-miles carried each day is 75¢; for the next 2,500, 70¢; for the next 5,000, 65¢; and so forth, down to 40¢ for each ton-mile over 30,000.

Based on past traffic figures, the average ton-mile rates paid to the airlines would be boosted as follows: American Airlines, from 45¢ to 62.26¢; Eastern Air Lines, 45¢ to 68.38¢; Northwest Airlines, 60¢ to 70.90¢; Transcontinental & Western Air, 45¢ to 68.38¢; United Air Lines, 45¢ to 59.70¢. Increases in annual revenue would be \$1,338,000, \$890,000, \$253,000, \$1,376,000, and \$1,414,000, respectively.

All increases are effective as of Jan. 1, 1948, except for American Airlines. Its boost is effective as of the date of the order, Apr. 7.

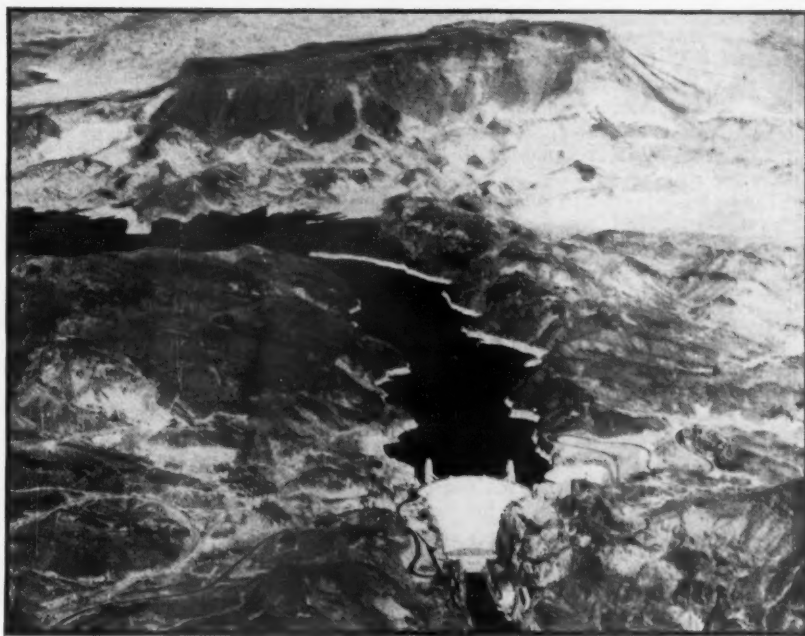
FALL SHOES CHEAPER

New England shoe manufacturers last week were talking lower prices on fall shoes (BW—Apr. 3'48, p24). They believe that (1) a drop will come, but (2) it will be slight.

Up to now—though there have been some declines in leather prices—shoes weren't affected. Main reason: Shoe prices were based on older, higher leather inventory costs.

Meantime, some of the bullishness has gone out of hide prices. Foreign needs didn't turn out as big as expected. The Aiken Bill, which proposes a revolving fund to be used by the Army to obtain raw materials for occupied areas, originally included hides. Now they've been cut out.

Hence buying all along the line is cautious. But more than one observer thinks this situation could easily go into reverse—when buying starts again, "it might be with a real rush."



HOOVER DAM'S RESERVOIR has its drainage showing. White fringe around lake reveals how water level has been drawn down to supply extra power for northern California

Hydropower: Rains Help Out

Central-northern California restores 20% electricity cut invoked last month. But it may be put on again June 1.

Northern and central California turned the electricity back on this week—for six weeks, at least. A 20% power curtailment, including a brownout, was invoked last month to cope with a serious water shortage (BW—Mar. 20'48, p21). After two weeks of intermittent rain in coastal and valley areas and snow in the Sierras, Robert P. O'Brien, the state's emergency power director, has called off the order until June 1.

• **Measurement Due**—By then his staff will have measured the drought area's power requirement against the hydroelectric potential of recent rains on the Pacific slope. O'Brien will slap on new restrictions if the gap is great. Meanwhile, he asked users to conserve without compulsion.

California is sticking to daylight saving time, which has saved a lot of electricity. And O'Brien is keeping a controlling hand on new power loads. Local conservation committees may authorize new power loads up to 100 hp. and 100 kw.; anything greater must be cleared with O'Brien.

• **New Power Grants**—The power czar gave a hint last week on how he may react to applications for big new power load: Acting on the first two industrial applications, he gave Chrysler's \$5-million Dodge assembly plant in San Leandro and American Radiator & Standard Sanitary's \$3.5-million brass-

fittings plant in Richmond about 25% of the power they sought. This will permit them to start operations.

Although the drought area has been drenched in the last fortnight, precipitation for the season is still only 62% of normal around Sacramento, 65% in San Francisco, 70% in Stockton, 72% in Fresno.

• **11-Year Lack**—For 11 years the fall of rain and snow on the western slope of the Rocky Mountains has been subnormal. The cumulative effect of the shortage is evident in the declining level of the lake behind Hoover Dam (picture, above).

Normally, Hoover Dam's hydro generators supply southern California. But the south's abundant supply of hydro and steam energy, shared with the north, was one of the factors that made it possible to relax power curtailment in the north this week. Paradoxically, though the water behind the dam is low, the rainfall and snowpack in the watershed of the Colorado River have been fairly normal this year; engineers look for a good runoff to refill the lake.

MORE OXYGEN FOR STEEL

Use of oxygen in steelmaking is increasing. This week arrangements were completed for the Linde Air Products Co., a unit of Union Carbide & Carbon

Corp., to install a large, low-purity oxygen plant at the Steubenville (Ohio) mill of Wheeling Steel Corp. The new plant is scheduled to produce about 135 tons of oxygen daily. The output will be used mostly in open-hearth furnaces for making steel.

Linde has operated a pilot plant at East Chicago, Ind. for more than 18 months; its capacity is between 175 and 200 tons a day of oxygen 90% to 95% pure (BW—Jun. 14 '47, p74). This production is entirely from one fractionating column where extremely low temperatures separate the oxygen from incoming air which has been purified and cooled. Linde says it is the largest single unit for oxygen production that has ever been built. Experience gained in the pilot-plant operation will be carried over into the design of the Steubenville plant.

Wheeling Steel has been experimenting with oxygen in its open-hearth furnaces for some time. The company believes that the use of low-purity oxygen will result in an effective increase in steel output at the Steubenville mill. It bases this conclusion on such factors as furnace design, operating practice, and types of steel produced.

The steel industry is testing several possible uses for low-purity oxygen in the open hearth. Perhaps the most promising use is for taking carbon out of the metal while steel is being made.

Congress' Job

Action on ERP, tax cut has backed up a lot of other bills. Quick adjournment unlikely. Big task: paring budget.

When Congress reached Apr. 15 on its calendar this week, its docket still looked discouragingly full. The G.O.P.'s hopes that the date would mark the beginning of the home stretch were beginning to wane.

The House and Senate have worked hard, and reasonably fast, in enacting ERP legislation and the tax cut. But meanwhile they have piled up a backlog of routine bills—many on the "must" list.

• **Money Bills**—The hair shirt of every Congress—appropriations to run the government—is beginning to itch again. So far no funds for fiscal 1949 have been finally approved. Last year not one of the 12 regular money bills had been enacted by July 1—when the new fiscal year begins.

Economy-minded Republicans are bound to use up a lot of time trying to pare the President's \$40-billion budget. Now they've got to swallow requests for upwards of \$3-billion more for defense, and the additional billions for

ERP. That takes time, as well as effort. All this means that Congress can hardly hope to hit the June 18 adjournment target. Speaker Martin and Senate leader Taft are mulling this solution: close shop for the Philadelphia conventions, then call Congress back to work in late July.

Here, briefly, is the outlook on what's still on the calendar:

Draft. A law affecting nonveterans from 19 to 25 years old will pass. Universal Military Training is being shelved during the present rearmament until it can be considered solely as a peacetime program.

Air Power. The 70-group Air Force has become a virtual campaign plank of the Republicans; a strong Democratic minority is behind it, too. Whether Forrester or Truman approve it or not, Speaker Martin will flag it through.

Tariff. Neither the House nor Senate steering committee has come to a decision on the Hull act. A one-year extension is likely as another bipartisan foreign policy maneuver.

Wages. Unless the rush toward a mid-June recess rolls too swiftly, legislation to up the 40¢-an-hour minimum wage to 60¢ or 65¢ will be voted on.

Farm supports. About all that will come out of current hearings on a permanent long-range farm program will be an extension beyond Dec. 31, 1948, of the price-support program.

Civil rights. Republicans think they can break a southern Democratic filibuster on the antilynching bill, maybe even on the antipoll tax bill. Sen. Ives' FEPC is now headed for a pigeonhole.

Housing. Taft counts on getting the Taft-Ellender-Wagner bill through the Senate with the public housing intact. That's as far as it's likely to go. The probable upshot: An additional \$2-billion will be poured into 4% G.I. loans for building of low-cost housing and rental units.

Taxes. Rep. Knutson's House Ways & Means Committee wants to bring out a bill making some noncontroversial changes in the tax system. But if the present plan to cut transportation and communications excise taxes is included, the Senate will likely put the bill aside. Senate leaders fear the whole excise-tax system would be opened up.

• **Promises**—The Republican leadership is sticking to its plan to keep the schedule tight. The G.O.P.-controlled 80th Congress has enacted labor regulation and tax reduction. It still has to make a record on reducing government payrolls and expenditures—the goal is to cut \$24-billion from the President's estimate (not including military funds).

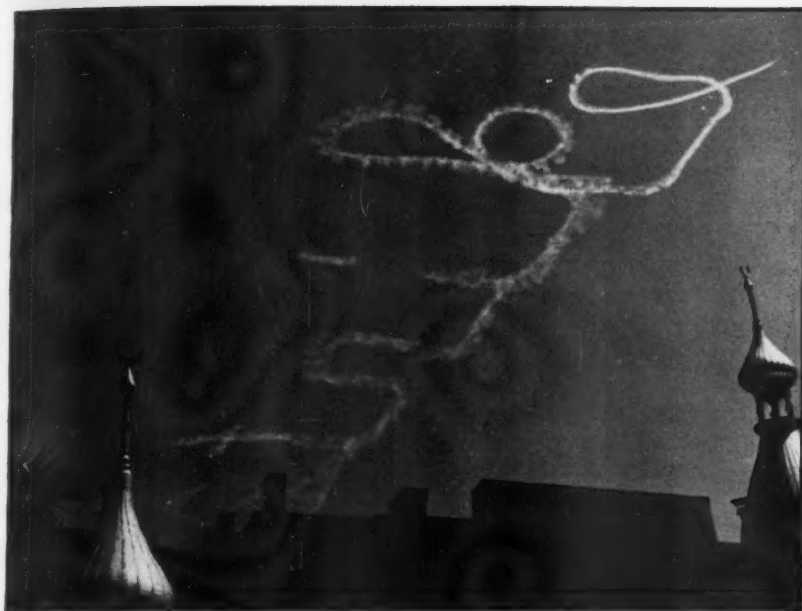
Those key promises were the platform planks of the 1946 election victory. The G.O.P. is standing on them in 1948.



Lucky Strike/Management's Forces Triumph

The expected revolt of George Washington Hill, Jr. against top management of American Tobacco Co. (BW—Apr. 3 '48, p26) fizzled out last week. President Vincent Riggio (right) and his operating group won out on all policy counts at the company's annual meeting in Flemington, N. J. Here,

Riggio holds a before-the-meeting huddle with Paul M. Hahn (left) and Richard J. Boyland, directors and vice-presidents. The only fire works at the meeting were supplied by stockholder-insurrector Lewis D. Gilbert, who challenged the pay of company officials. His proposals were kindly killed.



Airline Pilots Sky-Write Their Picket Signs

High above the Moorish spires of a Tampa (Fla.) building, striking National Air Line pilots use an air-age picket sign to let the people below know their position. The pilots walked off their jobs Feb. 3 in a wage dispute. Since then they have come up with a variety of airborne strike wrinkles. Besides sky-written picket signs,

the pilots have used towed signs. Another twist is "flying pickets"—several pilots fly around the countryside in a borrowed plane, landing at airports served by National. The pilots then get out and give their side of the controversy to any National passengers that happen to be hanging around the airport.

Railroads Need More Steel

That's what their requirements boil down to, if they are to be put into shape to handle increased freight traffic resulting from a national military preparedness program.

Any preparedness program will have to place railroads high on the priority list for materials and equipment. U. S. railroads simply aren't in condition to handle a large, continuing rise in freight traffic.

That was the gist of a speech last week by William T. Faricy, president of the Assn. of American Railroads. He told the Pan American Railway Congress in Havana: "The international situation requires immediate steps to prepare the railroads of the U. S. for any national emergency."

• **The Steel Pinch**—Like everyone else, the carriers and railroad equipment makers have not been able to get all the steel they need. Hence, they have been unable to replace equipment worn out during World War II.

And freight traffic has continued so heavy that, even since the end of the war, equipment—chiefly freight cars and rails—has been wearing out faster than

the roads have been able to replace it or repair crews to remedy.

Washington, as well as the carriers, knows the problem. Government planners are aiming toward "voluntary" allocation of some 250,000 tons of steel a month for car building and car repair purposes. A year ago the goal was set at 165,000 tons a month for 7,000 new cars, plus repairs. That output was not reached until late in 1947; meantime, a new target of 10,000 cars a month had been set.

• **Freight Cars**—The nation's carriers owned 1,731,231 freight cars on Jan. 1, 1948; seven years earlier, the total was 1,638,301. But since the war, they have had to dismantle 34,000 more cars than have been built. There's a favorable factor, though: The proportion of bad-order cars (unserviceable because of needed repairs) was 4.7% in March, 1948, compared with 8% in 1940.

Only in the last five months have

freight-car replacements begun to exceed retirements—a little. In March, 9,302 cars were built, greatest number since the war. The present order backlog is 126,028 cars.

Railroad men agree the present output isn't big enough to permit them to handle any sharp increase in traffic. Some say the need is for 16,000 cars a month for 10 months; others talk of a constant car building program of 12,000 cars a month. Either program would require additional steel allotments over present levels.

• **Locomotives**—Age and overwork has been telling on motive power, too. Eight years ago, the carriers owned 42,348 locomotives; at the start of 1948, the total was down to 39,764. As of Mar. 1, 1948, they had 1,596 on order; in the first two months this year they put 181 new locomotives in service. But deliveries, particularly on the popular diesel-electrics (which represent 95% of orders), are running a year or more behind orders.

Offsetting this numerical decline has been a constant rise in the average tractive effort of the engines. This is a gage of the pulling power of locomotives; in 1940 the average was 50,927 lb., today it is 57,641 lb.

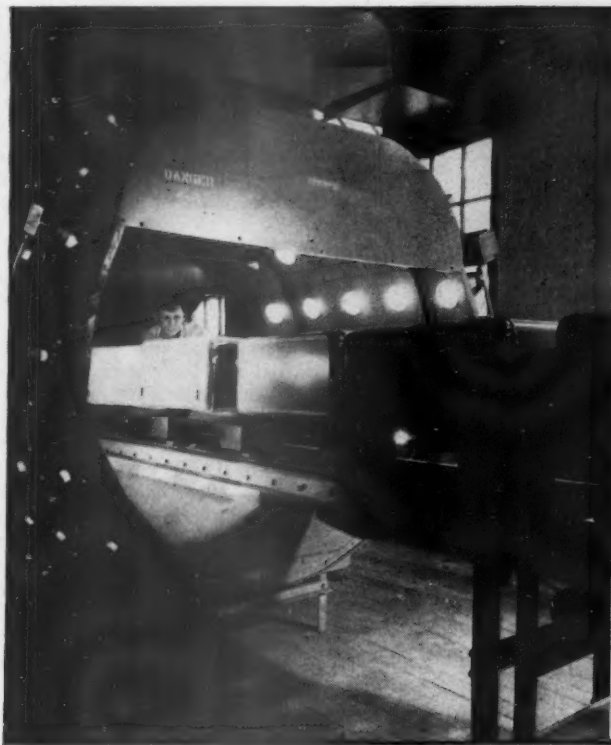
• **Rails and Ties**—Roadbeds have taken a terrific beating during the past seven or eight years. And deferred maintenance has been piling up; manpower and material shortages have made full-scale replacements impossible.

Back in 1929, when carriers handled 405.4-billion ton-miles of freight, they used 1,958,000 tons of rails and 74,679,000 tons of ties in replacement.

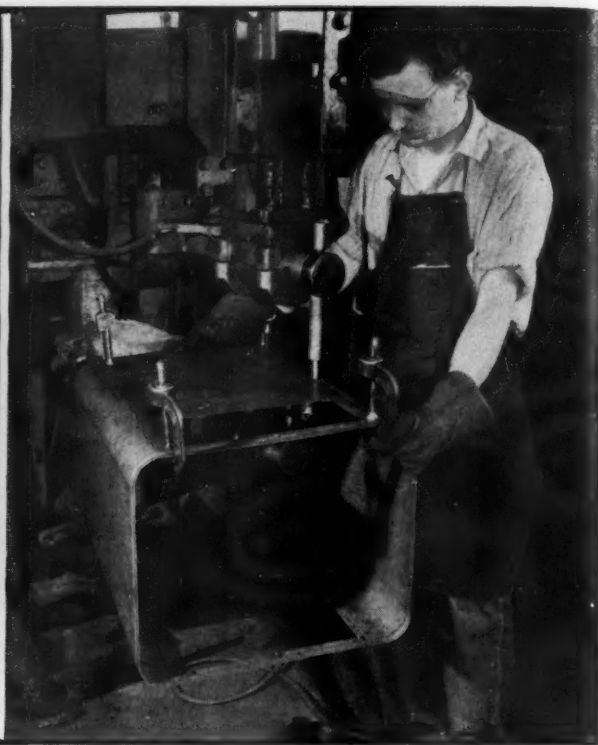
At no time during the war years or since have rail and tie renewals approached these figures; yet the freight load from 1941 on has consistently held above the 1929 level. Last year, when carriers handled 654.7-billion ton-miles of freight, rail renewals amounted to 1,422,000 tons, tie renewals to 37,400,000 tons. (A factor in the cross-tie situation: More ties are being chemically treated today than in 1929, hence they last longer.)

• **Efficiency**—The railroads have been able to handle a lot more freight with less equipment because of greater efficiency. For instance, the average freight car was carrying only 27.6 tons per trip in 1940; today the average loading is 32.6 tons. Railroads are getting better turn-around time on cars now, also more miles per car per day.

But any more big increases in efficiency to help boost capacity still further would be pretty hard to achieve. Railroad men and Office of Defense Transportation officials agree that more ODT controls are not what it would take to handle a bulge in business. The need as they see it, is simply more steel for more cars and equipment.



INFRA-RED furnace cuts drying time of unit heater cases



SPOT WELDING here turns out a case made of sheet metal

New Uses Increase Appetite for Power

Utilities face staggering demands for electricity, thanks to new industrial methods. Growing scarcity of fuels is also a factor.

Few people—least of all the electric utility operators—need to be told of the spectacular increase in power consumption over recent years. Last year's power output topped 1946 by 10%, even outdid the peak war year of 1944 by nearly as much.

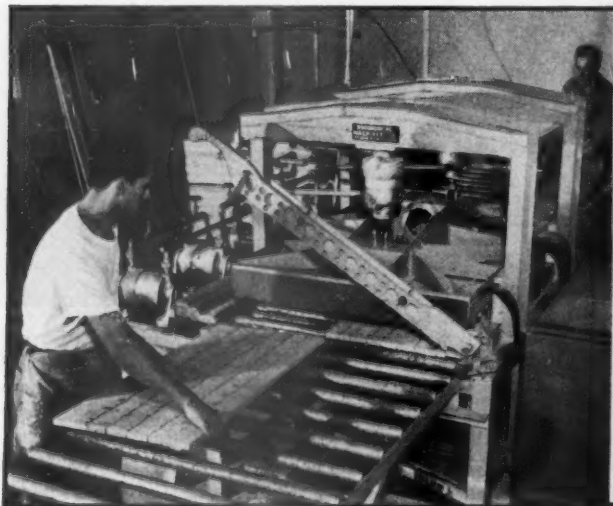
Yet, for all this increase, the nation's

appetite for power seems almost insatiable. That is why utilities are spending from \$5-billion to \$10-billion to boost capacity (BW—Jan. 24 '48, p65).

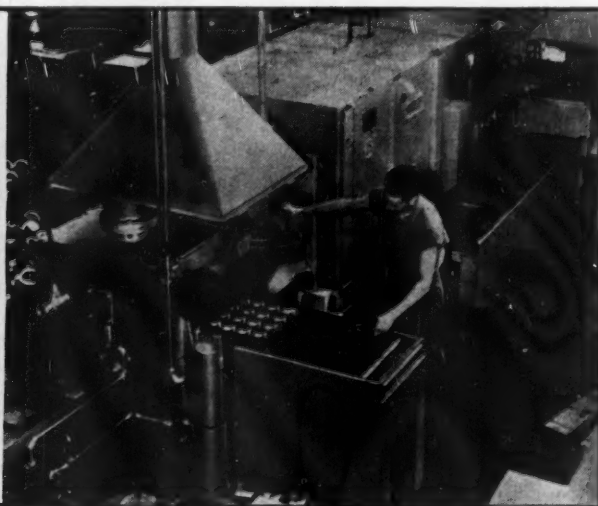
• **Power Trends**—In Chicago last week, power producers and users took a long look at the situation, came up with some startling observations on trends in

power demand. The occasion was the annual Midwest Power Conference, held by the Illinois Institute of Technology. The sessions worked over the nation's whole power picture, but the heaviest stress fell on the technical and economic aspects of electric power.

A. C. Monteith, manager of headquarters engineering for Westinghouse Electric Corp., set the stage for the talks on power consumption. His estimate: Generating capacity will be in-



RADIO-FREQUENCY turns out a fast bonding job



ELECTRIC furnaces are widely used to harden metal parts

creased nearly 80% in the next decade—from the present 52-million kw. to 92-million kw. by 1957. By 1977 it may well hit 250-million kw.

• **Homes and Farms**—The average domestic customer, Monteith said, uses 1,400 kwh. a year. Potentially, the modern home can use more than 10,000 kwh. Another speaker—Grover C. Neff, president of Wisconsin Power & Light Co.—dwelt on the farm market. He predicted that average farm consumption in the eastern half of the U. S. will jump from the present 1,855 kwh. a year to 6,000 kwh. within a decade.

But the industrial potential is even more staggering. F. R. Benedict, Westinghouse's manager of industrial engineering, pointed to past achievements: In 40 years, installed power for each American worker has zoomed from 2.9 hp. (31% of it electrical) to 7.2 hp. (93% electrical).

• **Industrial Uses**—And industrial usage is still going up. Herein lie the biggest potentials, according to Benedict:

Welding. New processes permit successful welding of aluminum, magnesium, stainless and hardenable steels. The metal fabricating industries can use three times the resistance welding equipment now in service.

Brazing. The joining of metals by heat and special alloys was pushed to a high state of efficiency during the war. Industry can use two or three times its present 50,000-kw. capacity.

Infra-red heating. Widely used for drying paints and varnishes, this technique is being developed for use in textiles, paper, and food. The market can increase some 200,000 kw. every year for the next decade.

Continuous annealing. Cold working of steel now must be interrupted so that the steel can be annealed to relieve stresses, restore it to workable condition. Methods for annealing on a continuous basis, using induction heating, are under study. The steel industry alone could absorb 1-million kw. of this type of heat in a short time.

Electric-arc furnaces. Furnaces for making high-quality steel are some of the largest power consumers. Installed capacity of 3-million kw. may be augmented by 500,000 kw. a year.

Resistance furnaces. The industry can well absorb 50,000 kw. of this type of equipment—for brazing, annealing, and heat treating under controlled atmosphere—each year.

Radio-frequency heating. Among its chief uses are bonding plywoods, curing rubber and plastics. These fields alone now use equipment totaling 5,000 kw.; potentially they can put 10,000 kw. more to work each year. Development of higher-frequency equipment will open up tremendous potentialities in such fields as paper and textiles.

Ore beneficiation. Depletion of the

nation's high-grade iron ores makes development of low-grade reserves necessary (BW—Apr. 19 '47, p20). Beneficiation of these (so they can be smelted) will require immense amounts of power—at least 1-million kw.

Petroleum. The flood of new oil burners will, of course, create a huge demand for electric power. So will the nation's dwindling oil reserves, which throws an increasing emphasis on synthetic liquid fuels (BW—Jan. 24 '48, p21). And production of synthetics takes electric power. For instance, to produce a barrel of oil from shale requires about 10 kwh. (BW—Mar. 27 '48, p73).

Benedict pointed out still other industrial potentials. Full mechanization of mines could easily treble the mining industry's installed capacity. The chemical industry, already highly electrified, is expected to make increasing calls on power supply. (The aluminum and magnesium industries alone may double their installed capacity of about 2-million kw. in the next decade.) And if U. S. industry is to bring its factories up to snuff, it will have to increase light

levels at least fourfold (BW—Nov. 15 '47, p68).

• **Fuel Picture**—John Van Brunt, vice-president of Combustion Engineering Co., thinks that the utilities' coal consumption will have reached about 145-million tons by 1957. Last year utilities used 86-million tons to generate slightly more than half of their total 225-billion kwh. output. But because of the growing scarcity of gas and oil, they will have to depend even more heavily on coal for producing steam.

LIGHT-PLANE RESEARCH

Private flying has not yet achieved the rosy postwar future predicted for it. One possible reason: The planes themselves aren't right.

Last week the Agricultural & Mechanical College of Texas (better known as Texas A. & M.) announced that it had set up a personal-aircraft research center. Initial effort will be to improve flight characteristics and utility of private planes. Fred E. Weick, designer of the Ercoupe, will be the director.



New Bomber Shows Off Its Get-Up-and-Go

In a trail of rocket smoke, Boeing's XB-47 Stratojet bomber roars from the runway. Six General Electric turbo-jet engines, each turning out 4,000 lb. of thrust, provide the normal power. Another 18 Jato (jet-assisted takeoff) units, each with a 1,000-lb. thrust,

boost the power for the spectacular climb. They are mounted in the bomber's fuselage.

Statistics on the plane are still secret. But its top speed is suspected to be around 600 mph. It is the first Air Force bomber to have swept-back wings.

How Do Your Wages Stack Up?

As third wage round gets underway, businessmen need data on recent changes in wage rates. Here are some figures.

If you're a business executive, chances are you're just about to start 1948 wage negotiations with your employees. Or maybe you've already started. In either case, one of the things you'll need to have down pat is the complete data on what has happened to wage rates in general since before the war—and particularly, how the changes in your industry compare with the general pattern.

Four major shifts have affected the over-all picture: (1) Wages are much higher everywhere; (2) there is much greater spread between high and low

industries; (3) there have been some shifts in the relative position of various industries; and (4) the impact of "fringe" benefits has been greatly increased.

The fringe question, with particular emphasis on how much these hidden payments actually cost today is discussed in this week's Trend (page 128). The box on the right shows some of the shifts in industry ranking. And detailed figures, industry by industry, on average weekly and straight-time hourly earnings, are shown in the following table:

INDUSTRY RANKING

Here is the relative position of wage earners in different industries in order of the amount of their average hourly earnings:

	Dec. 1947	1946	1939
Bituminous coal...	1	3	3
Building const....	2	2	1
Anthracoite coal...	3	1	2
Crude petroleum...	4	4	4
Elec. light & power	5	5	5
Metal mining....	6	7	9
Durable-goods manufacturing..	7	6	10
Wholesale trade...	8	8	7
Street ry. & buses	9	10	8
Telephone	10	9	6
Nondurable-goods manufacturing.	11	11	11
Retail trade.....	12	12	12

Industry	Average Weekly Earnings					Average Straight-Time Hourly Earnings					Wage Bill as % of Total Sales (1939)
	Jan. 1941	Mar. 1945	Dec. 1947	Percent Increase Jan. '41-Dec. '47	Percent Increase Mar. '45-Dec. '47	Jan. 1941	Mar. 1945	Dec. 1947	Percent Increase Jan. '41-Dec. '47	Percent Increase Mar. '45-Dec. '47	
ALL MANUFACTURING INDUSTRIES.....	\$26.64	\$47.51	\$52.74	98%	11%	66.9¢	97.2¢	123.2¢	84%	27%	16.0%
Durable Goods.....	30.48	53.38	56.52	85	6	72.5	104.9	130.0	79	24	17.9
Nondurable Goods.....	22.75	39.00	48.78	114	25	60.1	84.7	115.7	93	37	14.5
DURABLE GOODS											
Blast furnaces, steel works & rolling mills...	33.60	56.15	60.01	79	7	85.2	110.2	148.4	74	35	18.3
Grey iron & semisteel castings.....	30.45	53.98	58.16	91	8	71.2	102.1	131.0	84	28	33.7
Hardware.....	25.24	47.31	52.55	108	11	60.0	91.8	118.9	98	30	26.0
Stoves, oil burners, etc.....	26.07	48.78	56.22	116	16	66.5	96.7	128.1	93	32	20.4
Stamped & enameled ware & galvanizing...	26.32	48.71	54.72	108	12	65.0	97.5	126.8	95	30	22.5
Electrical equipment.....	33.18	52.51	56.99	72	9	72.3	102.9	133.3	84	30	n.a.
Radio & phonographs.....	24.08	43.04	48.59	102	13	62.1	86.6	115.6	86	33	17.0
Communication equipment.....	32.47	47.18	56.15	73	19	75.3	95.7	129.3	72	35	23.2
Machinery & machine shop products.....	34.00	55.03	59.22	74	8	73.3	102.8	132.3	80	29	22.7
Engines and turbines.....	36.50	60.85	60.38	65	-1	77.7	112.8	148.2	91	31	25.7
Tractors.....	36.03	53.58	60.24	67	12	83.4	106.7	140.4	68	32	19.6
Agricultural machinery, excl. tractors.....	29.92	54.68	57.77	93	6	74.0	105.5	137.4	86	30	21.0
Machine tools.....	40.15	60.49	61.34	53	1	71.6	105.1	134.9	88	28	28.6
Machine tool accessories.....	37.90	61.70	63.08	66	2	68.2	111.7	142.7	109	28	32.9
Railroad cars.....	29.57	55.91	59.54	101	6	75.4	110.4	139.7	85	27	20.6
Aircraft & parts, excl. engines.....	34.13	56.24	56.53	66	1	72.6	109.8	140.4	93	28	27.7
Shipbuilding and boatbuilding.....	37.69	64.63	61.69	64	-5	85.5	125.2	146.3	71	17	31.7
Automobiles.....	37.69	59.49	65.47	74	10	95.0	118.4	150.6	59	27	16.0
Nonferrous metals and products.....	30.47	51.25	55.09	81	7	70.7	99.0	127.6	80	29	11.6
Sawmills and logging camps.....	19.59	33.02	44.20	126	34	50.1	74.2	98.0	96	32	31.0
Furniture.....	21.42	38.51	49.10	129	27	54.1	81.9	108.7	101	33	24.9
Glass and glassware.....	28.02	41.27	53.07	89	29	76.4	92.0	131.3	72	43	n.a.
Brick, tile, & terra cotta.....	21.74	34.69	47.46	118	37	57.9	77.7	110.4	91	42	34.0
NONDURABLE GOODS											
Cotton manufactures, except small wares...	15.60	27.79	43.64	180	57	41.3	62.3	102.3	148	64	25.9
Silk and rayon goods.....	16.53	30.33	46.46	181	53	46.1	67.9	105.1	128	55	21.1
Woolen and worsted manufacturing.....	21.78	36.95	49.17	126	33	56.7	81.8	114.9	103	40	20.0
Hosiery.....	18.51	29.96	42.92	132	43	55.0	76.4	107.4	95	41	34.3
Men's clothing, not elsewhere classified.....	20.40	35.65	43.24	112	21	60.7	86.1	111.7	84	30	22.8
Shirts, collars, & nightwear.....	14.22	26.68	35.37	149	33	43.1	67.8	90.4	110	33	23.4
Women's clothing, not elsewhere classified.....	19.47	42.93	46.84	141	9	55.3	107.5	125.5	127	17	21.0
Boots and shoes.....	19.58	34.46	40.98	109	19	52.3	78.6	103.5	98	32	n.a.
Slaughtering and meat packing.....	26.84	42.94	61.57	119	43	66.6	86.0	119.0	79	38	6.1
Baking.....	26.46	39.08	47.43	79	21	62.1	79.6	106.8	72	34	20.6
Malt liquors.....	34.57	51.45	63.54	84	23	94.1	106.5	143.9	53	35	11.8
Sugar refining (cane).....	22.73	40.81	47.70	110	17	65.0	78.3	110.2	70	41	4.2
Cigarettes.....	22.38	34.88	45.45	103	30	59.2	74.1	108.3	83	46	2.5
Cigars.....	15.13	29.60	34.24	126	16	43.2	66.7	84.9	97	27	21.3
Paper and pulp.....	27.02	43.60	58.17	115	32	64.0	81.8	121.0	89	48	15.1
Paper boxes.....	22.26	36.01	49.44	122	37	56.5	77.9	108.1	91	39	16.7
Newspapers and periodicals.....	38.15	50.15	71.43	87	42	105.2	125.1	175.0	66	40	14.4
Printing, book and job.....	31.64	45.35	60.67	92	34	79.1	100.7	142.2	80	41	28.6
Drugs, medicines, and insecticides.....	24.68	36.44	47.64	93	31	60.5	79.1	115.0	90	45	6.4
Rayon and allied products.....	27.26	39.18	49.73	82	27	68.1	87.6	124.1	82	42	24.3
Industrial chemicals.....	33.10	53.78	60.08	82	12	79.7	104.4	140.1	76	34	11.3
Petroleum refining.....	34.46	59.47	66.32	92	12	97.0	115.5	159.8	65	38	5.2
Rubber tires and inner tubes.....	36.67	57.29	65.74	80	15	96.0	117.3	162.0	69	38	15.5
NONMANUFACTURING INDUSTRIES											
Bituminous coal.....	26.00	52.17	75.22	189	44	88.5	113.1	175.8	99	55	165.2
Crude petroleum.....	33.99	54.58	61.70	82	13	87.1	107.6	150.8	73	40	117.7
Telephone.....	32.52	39.94	48.03	48	20	80.4	90.3	120.9	50	34	136.3
Street railways and buses.....	33.63	49.55	60.11	79	21	68.1	84.5	117.5	73	39	133.3
Electric light and power.....	35.49	49.77	59.01	66	19	88.3	105.6	134.8	53	28	115.8
Wholesale trade.....	30.59	44.00	54.97	80	25	73.1	96.4	124.8	71	29	14.7
Retail trade.....	21.53	27.21	37.36	74	37	52.1	74.2	99.2	90	34	110.8
Hotels.....	15.65	23.97	30.89	97	29	31.3	49.6	65.1	108	31	128.2
Power laundries.....	18.37	28.80	33.88	84	18	40.7	62.2	75.8	86	22	151.5

* — Minus sign indicates decrease. n.a. — Not available. † — Includes both wages and salaries; comparable figure for all manufacturing industries was 22.6%.
Data: Bureau of Labor Statistics.

Something for the kiddies



At day's end (or when the cop comes) the sidewalk hawker can swiftly count up where he stands.

Legitimate business is more complicated, though; and "counting up" is more complicated, too. But it need not involve elaborate computations, or endless posting and filing. Not if you employ the amazingly simple Comptometer Peg-Board Plan.

Direct and swift, this plan saves

money because it makes any accounting task swift and direct. Here's why:

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ventory control, payroll, sales analysis, production, labor distribution.

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In the new conception of global geography Alberta is dead-centre on the trade-ways of tomorrow. On practically all great-circle air-routes, Alberta is in the path of the shortest way to and from the Orient, from New York to Moscow, to Shanghai, to Tokyo. From her capitol city the famed Alaska Highway leads northward. From her network of railroads, two transcontinental lines link with all major continental markets, and the seaboard of both coasts. True today — inescapable tomorrow — Alberta is a crossroads of the world.

From spur-sidings to refrigerated cars, from express trains to freight trains, railway service in, to, and leading from Alberta is fast and modern. Two of Alberta's cities are on direct trans-continental lines. Trailer-truck transportation throughout the Province is highly organized. Your new plant in Alberta will have all types of transportation at its door. An enquiry today will bring full information on rates, sites and service. You'll discover that in raw materials, in labour, in industrial opportunities — it's Alberta, the free land of free enterprise.

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AG-17

Capital Expansion

Boom roared through 1947 with business spending \$16.2-billion. This year it will put out \$2½-billion more than that.

The capital expansion boom will roar on through 1948—with business spending about \$24-billion more than in 1947.

• **Joint Survey**—That's the nub of a joint study issued this week by the Commerce Dept. and the Securities & Exchange Commission. The two agencies base their estimates on a sample of business budgets—including those of most corporations registered with SEC, plus a lot of other incorporated and unincorporated companies.

In the past, the forecasts have always erred on the low side. This lends an extra-bullish flavor to the latest estimate that U. S. companies will spend \$18.7-billion for plant and equipment this year. Last year the figure was \$16.2-billion.

• **Above Predictions**—Final figures on capital expenditures ran to \$4.9-billion during the last quarter of 1947—much higher than predicted. Preliminary figures for the first quarter of this year show a drop to \$4.4-billion, which is still higher than any quarter in 1947 except the last. For the last three quarters of 1948, expenditures are expected to rise nearly to 1947's fourth-quarter peak and to hold there.

New manufacturing plant and equipment take a less prominent place in 1948 than in 1947. In dollar volume, such 1948 expansion is expected to be about 4% above last year—which may represent a slight drop in physical volume.

The big increases in 1948 are in the trade, service, banking, and communication group (called "commercial miscellaneous"), which is up 25%; in railroads, up 76%—with the heavy emphasis in the second half of the year; and in electric and gas utilities, up 21%.

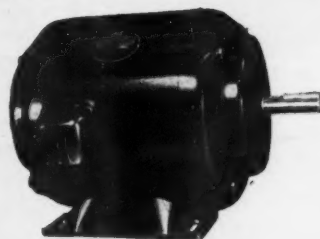
• **The Figures**—Here are the agencies' figures for plant and equipment expenditures by important groups of businesses (000 omitted—1939 and 1947 are actual expenditures; those for 1948 are intentions to spend):

Year	Total	Mfg.	Comm.	Gas & Elec.	RR
1939 (quar. av.)	\$1,300	\$482	\$462	\$120	\$70
1947					
1st quarter...	3,160	1,450	900	330	160
2nd quarter...	3,940	1,850	1,030	450	220
3rd quarter...	4,140	1,870	1,160	500	230
4th quarter...	4,960	2,290	1,340	620	310
1948					
1st quarter...	4,480	1,940	1,320	510	340
2nd quarter...	4,780	2,000	1,400	600	390
2nd half.....	9,450	3,820	2,840	1,200	890

BUSINESS WEEK • Apr. 17, 1948



B-Line Leadership COVERS THE FIELD FROM 1/4 TO 30 H.P.



**B-LINE
REPULSION-INDUCTION**
1/4 Thru 5 H.P.

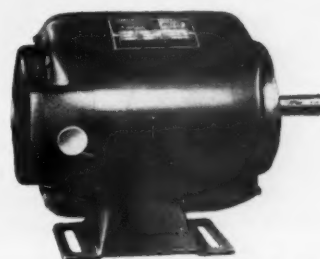
The ideal motor for all types of hard starting jobs such as pumps, compressors, milking machines, commercial refrigeration, machine tools and farm machinery.

Steel frame construction. Drip proof, 95% enclosed frame and equipped with "Life-Seal" ball bearings... LATEST DEVELOPMENT; Brush ring readily accessible by simply removing two screws in end cover. This gives access to Reversing Mechanism as well as permitting complete withdrawal of brush holders without disassembling the motor.



**B-LINE
POLYPHASE**
1/4 Thru 30 H.P.

These Squirrel Cage Induction-run motors are of the simplest and most rugged construction. Due to their low operating temperature they are particularly adapted to machine tool and other heavy duty applications, where continuous operation is necessary. No brushes or moving contacts inside the motor. The one piece rotor is dynamically balanced, and practically indestructible. Normal torque, normal starting current characteristics, or high slip, high torque characteristics for applications having extra heavy starting loads.



**POWER-POISE
CAPACITOR MOTOR**
With Inbuilt Condenser
1/4 Thru 3 H.P.

Streamlined design—no brushes or commutators—perfect for refrigeration, air conditioning equipment, blowers and ventilating fans, oil burners, stokers and other applications where extreme quietness is essential—dynamically balanced—the ultimate in performance and dependability; has newly developed Switch Actuator, without tension springs or pins. No unsightly condenser mounted on top of motor, as motor has inbuilt condenser. B-LINE motor and base mountings are interchangeable with N.E.M.A. standard dimensions.

IMMEDIATE SHIPMENT ON STANDARD TYPES AND SIZES

THE BROWN-BROCKMEYER COMPANY

PLANTS AT DAYTON, WILMINGTON, WASHINGTON AND KENIA, OHIO

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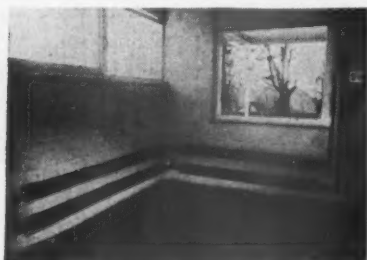
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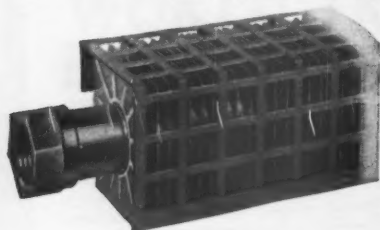
Warm Spot in January Cold Wave

Hundreds of formerly "hard-to-heat" buildings . . . places that used to be cold even in normal winter weather . . . were oases of warm comfort during the January-February cold wave thanks to a post-war Webster development—Webster Type WI Extended Surface Radiation for hot water and two-pipe steam service.



Installation in Gardener's Cottage

Using modern materials, copper tubing and aluminum fins, Type WI Radiation provides better than a square foot of heating surface for each 1/2 lb. of weight. Takes up negligible space. Can be put where the heat is needed—along the wall, close to the floor, behind benches.



Take steps *now* while the memory of your cold weather difficulties is fresh in mind. See if Webster Type WI Radiation can be used to turn your cold spots into areas of next winter comfort. Good delivery now.

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Webster
HEATING

COMMODITIES

Wheat Outlook Brightens

Agriculture Dept.'s estimate for winter crop is 22-million bu. over Dec. 1 forecast. But only good weather will yield 860.5-million bu. this year—as against 1,068-million in 1947.

Businessmen watching the international food situation have been waiting for the Dept. of Agriculture's winter wheat estimate based on Apr. 1 conditions. When it was released last week end, they took one look—and decided to keep their fingers crossed.

The reason: While the world food situation continues to look bright (BW—Mar. 6 '48, p19), all the new U. S. crop report really did was to cut the period of hazard which our wheat crop must surmount.

• **Short Time**—The late and vulnerable winter wheat now has squeezed by two rounds in its fights for survival—the drought last fall, and then winter freezing.

But the late wheat must have timely rains and a delay in the normal hot-windy weather of early summer. That would be the exception rather than the rule. Even so, ideal weather conditions could still produce a wheat crop in doubtful areas.

• **Boost**—Statistically, Agriculture reported an 860.5-million bu. winter wheat crop in prospect. This is 22-million bu. over the Dec. 1 forecast. But it is still far below the 1947 harvest of 1,068-million bu. Kansas, biggest wheat producing state, has an outlook for only 56% of last year's production.

Also, since Apr. 1, soil-blowing has caused some damage to winter wheat in Texas, Oklahoma, and western Kan-



New Allis-Chalmers Tractor Pushes Implements

Part of the farmer's pain in the neck will be done away with by this new, small, rear-engine tractor, unveiled by Allis-Chalmers Mfg. Co. this week. The low-cost Model "G" pushes, rather than pulls, implements. This gives the driver full view of his work without a lot of neck twisting.

The tractor weighs 1,400 lb., two-thirds the weight of the smallest conventional A-C unit. It is priced at \$680, ready to drive away, but without implements. Allis-Chalmers has tooled its newly acquired plant at Gadsden, Ala., to turn out the unit. But present capacity will limit the output.

No Shop Too Big . . . No Room Too Small . . . For Comfortable, Profitable

FRIGIDAIRE AIR CONDITIONING



FOR SHOPS AND STORES

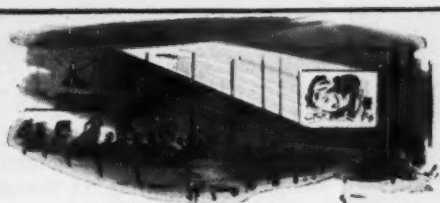
This Frigidaire Store Conditioner is a complete package in an attractive cabinet—occupies less than 7 sq. ft. of floor area. Installation is simple, requires no extensive building alterations, no interruption to

business. Ideal for leased premises, for it may be readily disconnected and reinstalled in a new location. Provides cool, dehumidified, filtered and gently circulated air in summertime. Heating coil may be added for circulation of warm, filtered air in winter months.

YOU'RE TWICE AS SURE WITH TWO GREAT NAMES

FRIGIDAIRE MADE ONLY BY GENERAL MOTORS

Commercial Refrigeration and Air Conditioning
Equipment . . . Electric Appliances for the Home.



CENTRAL SYSTEMS FOR LARGER INSTALLATIONS

In restaurants, stores, auditoriums, theatres, many other businesses, Frigidaire's precision-engineered air conditioning systems provide utmost dependability at surprisingly low operating cost. Ask your experienced Frigidaire Commercial Dealer about the advantages of these Frigidaire systems.



FOR OFFICES AND HOMES

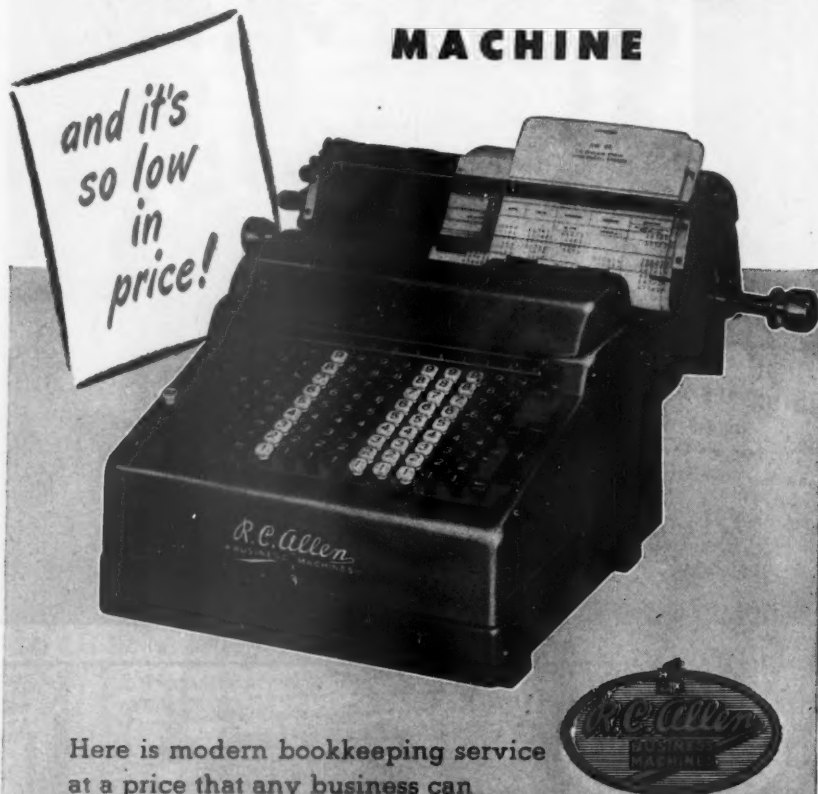
Inexpensive air conditioning for individual rooms—window type Frigidaire Air Conditioner. Compact, self-contained—installed at minimum expense. Plenty of cool, comfortable air; keep windows closed and shut out drafts, dirt, noise.



FOR PRODUCTS YOU CAN DEPEND ON . . . A NAME YOU CAN DEPEND ON
... A DEALER YOU CAN DEPEND ON—SEE FRIGIDAIRE! Find Dealer's name in Classified Phone Directory under "Air Conditioning" or "Refrigeration Equipment." Or write Frigidaire, Dayton 1, O., Leaside 12, Ont.

Introducing the *NEW* R.C. Allen

desk model **BOOKKEEPING
MACHINE**



Here is modern bookkeeping service at a price that any business can afford. No other machine has ever offered so much for so little. With the new R. C. Allen desk-type bookkeeping machine, your ledger, statement and proof journal can be posted simultaneously; banking or payroll work can be handled with equal speed, simplicity, and accuracy. You do not need a trained operator — any clerk can handle the R. C. Allen.

Call FOR A DEMONSTRATION *today!*

See how quickly, easily and inexpensively you can have a modern bookkeeping system — the R. C. Allen way

For authorized R. C. Allen sales and service, consult the yellow pages of your telephone book

R.C. Allen Business Machines, Inc.

681 Front Street, N. W. • Grand Rapids 4, Michigan

ADDING MACHINES • CALCULATORS • BOOKKEEPING MACHINES • CASH REGISTERS

sas. But serious damage has been limited to small areas.

• **Reaction**—The higher winter wheat estimate brought a quick reaction. The day after the report, Agriculture Secretary Anderson announced a boost of 16-million bu. in this country's wheat and wheat-as-flour export commitments for the year ending July 1. He also hinted that within the month, the Cabinet Food Committee would bring the export figure up again—equaling, or bettering, last year's exports of 570-million bu. of grain. This is the goal that brought on last fall's Luckman campaign to "save" an extra 100-million bu. of wheat.

The report was good news, too, to those who were worried about another downward spin in the grain markets. The day after the government's report was out, wheat prices rose from 3¢ to 4½¢ a bu.

• **Effect**—But the southwestern winter wheat farmer hasn't believed all the favorable crop reports that have been floating around. He looked at his own fields, decided not to sell all of last year's crop. As a result, there were 257-million bu. of wheat on farms Apr. 1 compared to only 140-million last year.

Last week's forecast by the Agriculture Dept.'s Crop Reporting Board may cause many farmers to part with last year's crop more freely. Of course, large offerings could have a deflationary effect on the grain market.

• **Spring Crop**—Still undetermined is the spring wheat crop, soon to go into the ground—with moisture conditions favorable.

Tomato Growers Balk At Lower Prices

Many farmers in New Jersey and eastern Pennsylvania have made a good living out of raising tomatoes. Each year they cultivate some 45,000 acres, sell most of their 300,000-ton output to the Campbell Soup Co. in Camden. In the past two years the growers have done particularly well—Campbell has contracted in advance to pay them \$39 a ton for U. S. No. 1 grade tomatoes, \$28 for No. 2 grade.

• **Change**—But last week the farmers were up in arms against Campbell. The company was offering \$3 less per ton on both grades for this year's crop. Its reasoning: The tomatoes Campbell is contracting for now won't reach the canneries until late August or September; and some won't get to grocers for as long as 18 months after that. The company is convinced that food prices will have skidded by then—and that Campbell would be taking a loss at the old buying price.

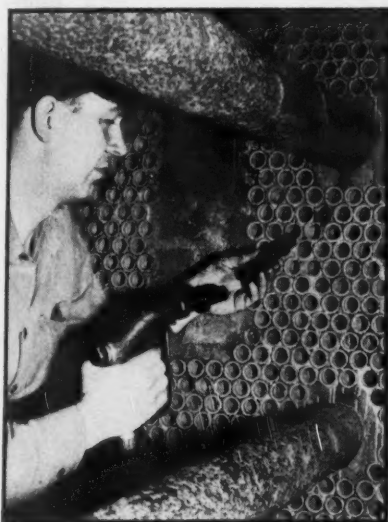
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ation. They argue: fertilizer, machinery, and labor costs have risen in the past year; so they would have to get \$2 per ton more this year than last to make up the difference in higher expenditures. That makes a spread of \$5 per ton between what the farmers want and what the company is willing to give.

• **Shortage?**—Campbell's was swamped with a bumper crop of tomatoes last year (BW—Sep. 13 '47, p44). Because of the present impasse, just the opposite may happen this year. Spokesmen for the tomato growers met this week to discuss a possible "strike" against the canneries—by turning their acreage from tomato growing to growing of grain and other crops. The farmers insist that they will do this unless they get at least last year's prices for their tomatoes this year.

• **Plans Made**—But before the dispute arose, both sides had laid plans for handling tomatoes. The company's seedlings are maturing in southern fields, nearing the May 1 transplanting operation to northern acreage. And the farmers have committed themselves to employing some of the 2,000 Puerto Rican agricultural workers which New Jersey will import this year.



CLEANING TWIST

Special spiral brushes, jabbed through condenser tubes by a 200-lb. jet of water, are West Penn Power Co.'s answer to the old problem of keeping steam condensers clean. The Pittsburgh-area utility has experimented with the method for over two years, now pronounces it highly satisfactory.

Two men using the brush-jet method can clean an ordinary-sized condenser (6,000 to 9,000 tubes) in two eight-hour shifts. The brushes, designed by Osborn Mfg. Co., Cleveland, are made of nylon. West Penn Power says that they clean the tubes of mud-slime and algae better than any other methods its engineers have tried.

H & D BOXES



DEVELOPED
for safety

DESIGNED
for savings



HINDE & DAUCH

Authority on Packaging

H & D



View in Foundry During the Progress of a Heat

This cartoon is reproduced from the humorous Elliott Bicycle Catalog of 1888.

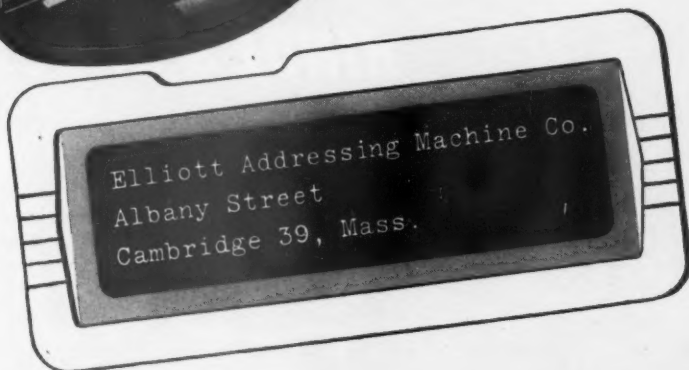
IN THE ADDRESSING Machine Industry your only choice is to adopt Elliott typewriter stencible plastikote address cards or to continue to live with the noise, cost, weight and grime of metal address plates. There are only two kinds of addressing machines in the entire world and Elliott makes the only kind that does not use metal address plates. Elliott makes the lowest priced addressing machine (shown below—\$45) and Elliott makes the highest priced addressing machine (\$15,000.00).

And Elliott makes a better addressing machine for your use and will put it in your office and let you pay us for it out of the money it saves you. To let you experience the lightness, cleanliness and compactness of Elliott address cards and the superior addresses they noiselessly print, may we demonstrate this little Elliott Addresserette in your office?

\$45 ADDRESSERETTE



Two interesting and informative booklets will be sent upon request. Simply write, on your business letterhead, to The Elliott Addressing Machine Company, 151 Albany Street, Cambridge 39, Mass.



Flour Milling Off

Production falls as exports, domestic consumption drop. Postwar boom has been biggest in the industry's history.

The flour-milling industry—at least temporarily—has come to the end of the biggest boom in its history. So flour mills are undergoing a drastic revision of operating schedules.

Last week in Buffalo, General Mills, Inc., shut down the world's largest flour-milling plant. This week the mill was scheduled to resume operations again—but only at 50% of normal production.

• **Symbolic Move**—The move is symbolic. All over the U. S., flour mills are cutting back. Some other mills in Buffalo and Minneapolis—big flour centers—are operating on schedules as low as three or four days a week. Even in Oklahoma, lagging demand has caused production cutbacks.

There is a twofold reason for the slump: (1) a drastic cut in flour exports; and (2) unusually slow domestic flour sales.

• **Postwar Boom**—The milling industry's war boom didn't start until the shooting war was over. Beginning with



GUNNING FOR LEAKS

This pistol-like electronic instrument, developed by General Electric Co.'s laboratories, guns for leaks in pressure systems. It sucks in streams of air, spots tiny amounts of certain escaping gases and vapors. On Freon lines, for example, it will detect leakage at a rate as small as 1/100 of an oz. a year. Results can be shown on a meter or by the varied pitch in tone of a loudspeaker.



WATCH YOUR WEIGHT

1. Once you're over 30, it pays to watch your weight.

Under 30, a little overweight may be an advantage. But statistics show that when you are older, overweight is often associated with heart disease, kidney ailments, high blood pressure, diabetes, and other diseases.

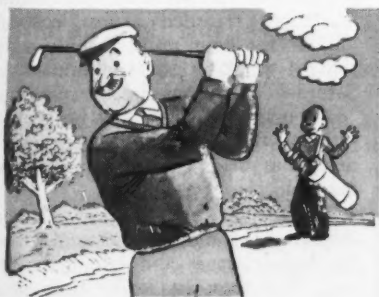
So, if you're overweight, give some thought to protecting your health by bringing your weight down.



2. See your doctor first, so he can check your physical condition, suggest approved methods for losing weight, and advise you how much to lose.



3. Your doctor will be able to help you work out a tasty, varied diet that will let you lose weight without endangering health or strength.



4. He may also ask you about the type of work you do, so that he can advise you on the kind and amount of exercise you may take.



5. It's wise not to use reducing drugs, or to try special diets unless your own doctor recommends them. They may do you more harm than good.



6. Once your weight is down to normal, try to keep it there. Remember that one step toward a longer, healthier life is watching your weight.

To bring you other helpful information about your weight, Metropolitan has prepared a booklet called "Overweight and Underweight." It includes suggested low-calorie menus, and reducing exercises. Write to Metropolitan today for your free copy of this booklet. 58-5.

COPYRIGHT 1948—METROPOLITAN LIFE INSURANCE COMPANY

Metropolitan Life Insurance Company (A MUTUAL COMPANY)

Frederick H. Ecker, CHAIRMAN OF THE BOARD
Leroy A. Lincoln, PRESIDENT
1 MADISON AVE., NEW YORK 10, N.Y.



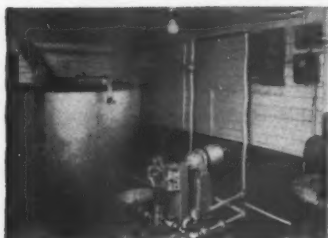
TO EMPLOYERS: Your employees will benefit from understanding these important facts about overweight. Metropolitan will gladly send you enlarged copies of this advertisement—suitable for use on your bulletin boards.

TO VETERANS—IF YOU HAVE NATIONAL SERVICE LIFE INSURANCE—KEEP IT!

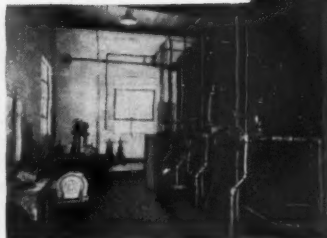
Railroad Executives

HAVE A NEW INTEREST

IN THE COST OF WATER...



Dearborn wayside treatment station supplying scientifically treated water for steam locomotives.



Four bed De-Ionizing system installed at a terminal to produce high purity water for Diesels.

As Diesel fleets grow, water costs take on new importance. Diesels cannot thrive on raw water. It's traditional that *steam* locomotives, feeding on Dearborn scientifically treated water, stay scale free and are capable of round-the-clock service over long periods. Savings effected by this Dearborn service show up in sizable figures on operating statements.

Now, executives ask... "Can costly Diesels stay trouble-free with equal ease and economy?" The answer is "yes." New Dearborn De-Ionizing equipment produces the high purity water Diesels require. Cooling systems and steam generators are kept scale free and Diesels are quickly serviced with this high purity water at refueling terminals. As De-Ionizing costs are lower than distillation... dollars saved pay for equipment in a mighty short time.



Dearborn

TRADE MARK REGISTERED

Engineering Service in Rust Prevention,
and Water Treatment for boilers and locomotives.

DEARBORN CHEMICAL COMPANY

Laboratories and General Offices
310 S. Michigan Ave., Chicago 4, Illinois

Engineering sales offices in principal
cities around the world

the 1946 harvest, mills ran at a record rate. Monthly flour output zoomed; some months it exceeded 26-million cwt. For a year and a half it averaged 25-million cwt. a month. Exports accounted for fully a third of this flour. But exports in 1948 will fall sharply below this figure.

Already flour output figures are sharply lower than a year ago. Latest Bureau of the Census reports show a February production of 21-million cwt., 13% less than in January, and 13% less than February, 1947. The Northwestern Miller estimates March output at 21.4-million cwt. That means that the trend is downward: March has more days than February.

• **Consumption Off 12%**—Flour consumption within the United States dropped 10% from 1945 to 1947, currently is averaging about 12% below the 1945 level. Millers attribute this decline to the save-a-slice-of-bread campaign and to the competition of other foods. (Bread consumption, historically, is higher in poor times than in good.) Commercial buyers are cutting inventories and holding off new purchases in the hope of lower prices when the impact of the new crop (page 30) is felt.

• **Production Outlook**—In an effort to end the drop in consumption, millers have embarked on a \$2-million, two-year advertising campaign (BW—Feb. 28'48, p46).

But millers expect flour production to average 20-million cwt. a month this year, about 20% less than a year ago—regardless of what they might do.

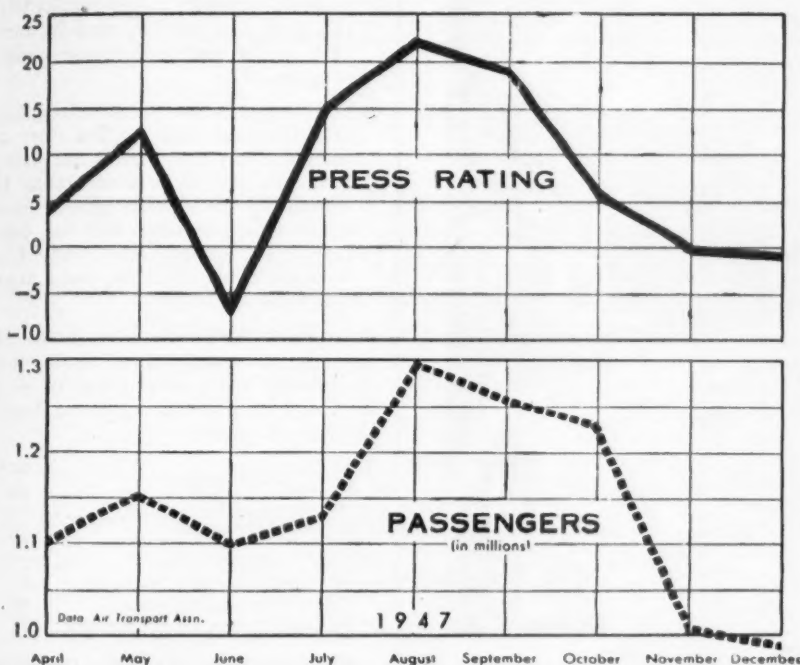
It's to meet this situation that millers are cutting running time to three, four, or five days per week. Sunday running, heretofore regarded as an economic "must" for flour mills, is only a fraction of what it was six months ago. Saturday operations are sharply lower. Many marginal plants have been closed. Others which subsisted on Army orders or various types of export business will also fold.

• **The Bright Side**—Unions of cereal workers a few months ago were pressing for higher wages and talking of striking. Now they are losing their steam. With curtailed operations, millers have less to worry about in a work stoppage than when orders are stacked high on the spindle.

ORE BEGINS TO FLOW

The Great Lakes shipping season began to pick up steam this week. Dozens of ore carriers were on their way to Lake Superior ports to pick up cargoes. The season was officially opened last week when the first carriers of the year put into Cleveland. It was the earliest start in several years—a relief to steel companies. Ore stocks were at a 30-year low (BW—Mar. 27'48, p20).

RESEARCH



CLOSE CORRELATION between the month-to-month movements of the Twohey press rating for the air-transport industry and the number of airline passengers shows that the volume of air travel is closely related to the status of the airlines' public relations.

Measuring Public Relations

James Twohey's "press ratings" serve as a yardstick of the amount, and favorable or unfavorable nature, of newspaper publicity received by an industry or an individual company.

How's your press rating? Industry's press agents may some day fret over that measure of how newspapers handle their material—just as radio stars fret today over their Hooperatings.

• **Who Does It**—The man chiefly responsible for this prospect is James H. Twohey. For years Twohey has been analyzing the editorial pages of newspapers to find how they stand on important public issues.

James S. Twohey Associates now does a similar analysis of newspaper news columns to tell industry how the press is treating it. Twohey's staff of 14 readers and analysts comb 52 representative metropolitan papers daily for news stories about four industries—oil, rail, air transport, and auto manufacturing.

The papers analyzed were picked by standard statistical sampling methods. The resulting sample makes allowance for regional differences in population and for differences in circulation of the papers. According to Twohey, it

represents papers accounting for 60% of the country's daily-newspaper-reading public.

• **How It's Done**—The press ratings measure the amount and the nature (favorable or unfavorable) of publicity. They are based on three factors:

COVERAGE measures the portion of the newspaper-reading public whose papers covered the subject under discussion. Thus, 25% coverage on a story means that 25% of all newspaper readers could find that story somewhere in their papers. Figures above 100% are possible. The auto industry, say, might have 150% coverage during a certain month. That means that readers are exposed to an average of 1½ stories on the industry each day during that month.

VISIBILITY measures the extent to which newspaper emphasis devices—pictures, headlines, page position—are used. A story with a banner head-

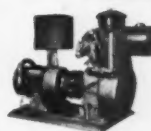
POWER SHORTAGES
Power shortages have eliminated Christmas
are showing business suffer from power outages
the closing of the stores and people
are a disaster

POWER FAILURES!
Power outages cause serious losses
which can be avoided by installing a "U.S." unit

Why Worry?

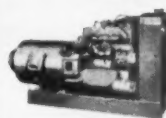
**I HAVE A "U. S."
ELECTRIC PLANT...**

... IN MY HOME



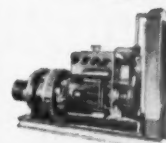
1500 to 7500 WATTS
Storms can't shut off your oil burner; frozen food won't thaw; and you need never be in darkness with a "U.S." stand-by Electric Plant. It's cheap insurance!

... ON MY FARM



1500 to 15,000 WATTS
In case of high-line failure a "U.S." unit can keep your farm "going." It operates pumps, furnace, locker, refrigerator, milker, separator, radio, etc.

... AT MY FACTORY



1500 to 140,000 WATTS
In many industries the damage caused by just one power failure would justify and pay for a "U.S." unit. These units prevent spoilage—lost production—lost profits.

You'll find "U.S." units in vital spots throughout the world. For over 30 years United States Motors has been building the World's most complete line of engine-generator units. They're noted for their dependability.

Write or wire, stating type of plant in which interested.



**UNITED STATES
MOTORS CORP.**

575 Nebraska St.
Oshkosh, Wis.

Prominent Users of Strathmore Letterhead Papers: No. 77 of a Series



Famous Old Philadelphia Restaurant

Uses **STRATHMORE**

For three quarters of a century world-famous figures have frequented Old Bookbinder's Restaurant, noted for its cuisine and colorful character. Its walls are lined with collectors' items...manuscripts, prints, priceless relics and documents.

Significantly, the letterhead used by this old Philadelphia house is Strathmore—logical choice of a firm whose insistence on quality has kept it a leader in its field.

Whether your business is that of restaurateur or manufacturer, lawyer or scientist, the caliber of your letterhead is important to prestige. Let your printer show you how Strathmore letterhead papers can express the quality and character of your company.

Strathmore Letterhead Papers: Strathmore Parchment, Strathmore Script, Thistlemark Bond, Alexandra Brilliant, Bay Path Bond, Strathmore Bond.

STRATHMORE MAKERS
OF FINE
PAPERS

Strathmore Paper Company, West Springfield, Massachusetts

line and two pictures on page 1 will obviously be read by more people than one with a small headline and no pictures on page 8. So a 23% visibility rating on a story means that the story was probably read by only 23% of the people in whose papers it appeared.

VALUE measures the probable reaction of the average man to the story as printed. Only three ratings are given: favorable, neutral, or unfavorable. In computing the ratings, neutral news is considered to have half the publicity value of favorable news. Unfavorable news, of course, has a negative value.

• **An Example**—Here's how James H. Twohey Associates might figure that an industry had a press rating of + 9 in March (the percentages are hypothetical, of course):

Total coverage.....	90%
Favorable news.....	40
Neutral news.....	30
Unfavorable news.....	20
Average visibility.....	50
The favorable news averaged....	45
The neutral news averaged.....	40
The unfavorable news averaged..	75

By multiplying the two matching percentages in each category, Twohey gets:

Readers with a favorable impression..	18%
Readers with a neutral impression..	12
Readers with an unfavorable impression	15

Neutral news is considered to have half the publicity value of favorable news. So Twohey adds the favorable figure (18) to half the neutral figure (6), and subtracts the unfavorable figure (15). This gives the industry a press rating of + 9 for the month.

• **Who Buys It**—Twohey's industrial analysis of the press is strictly a commercial venture. His clients are companies operating in one of the four industries analyzed; 14 now take his service.

Basic charge is \$300 a month. For this the client gets a monthly press analysis of his industry; he can also get, on request, three or four special press ratings each month on specific news developments in his field. These are not limited as to subject: They can cover a news development relating to the client himself, or to one or more of his competitors, or to the entire industry.

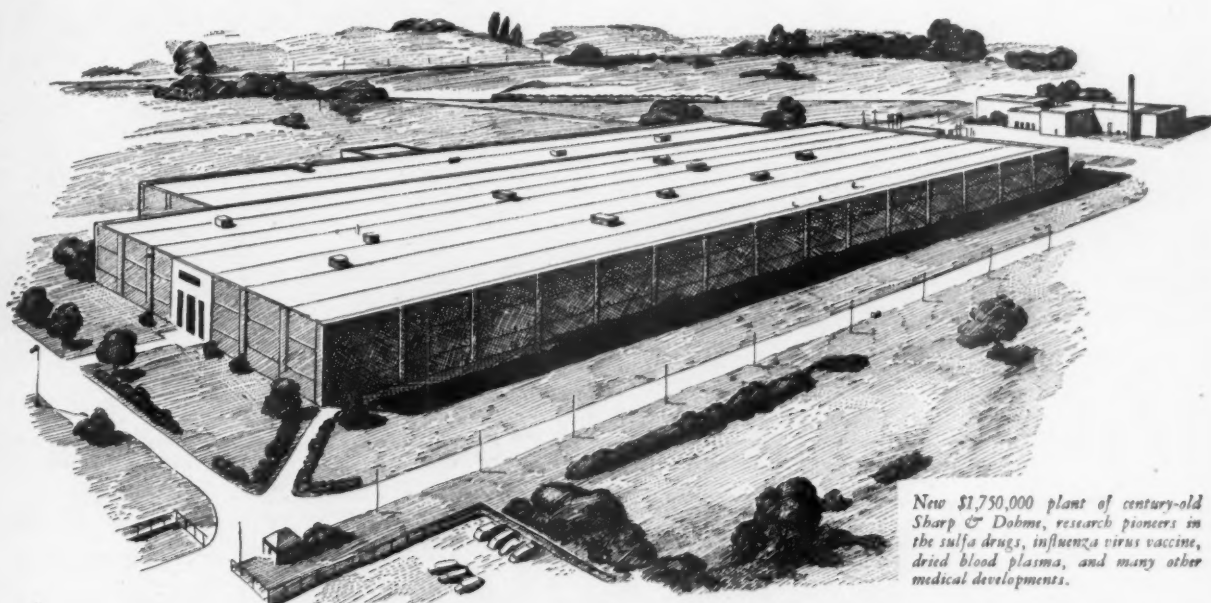
• **Measuring Stick**—Twohey believes his service provides a measuring stick to show how well publicity departments get their stories accepted by the press. Twohey's favorite example of how well his "press rating" measures public opinion of an industry is the parallel ups and downs of his air-transport-industry ratings and aviation passenger traffic (chart, page 39).

Sharp & Dohme

Acquires new \$1,750,000 plant in Pennsylvania

SHARP & DOHME, one of the nation's leading pharmaceutical and biological manufacturers, recently purchased a \$1,750,000 modern, one-story plant at West Point, near Philadelphia. The company's research laboratories, manufacturing, shipping and warehousing opera-

tions eventually will all be located here and will require at least double the present 400,000 square feet of plant floor space. Construction of new buildings and laboratories will start soon on the adjoining 178 acre site purchased for this purpose.



New \$1,750,000 plant of century-old Sharp & Dohme, research pioneers in the sulfa drugs, influenza virus vaccine, dried blood plasma, and many other medical developments.

Hundreds of millions of dollars are being invested by private industry in the gigantic expansion, modernization and diversification movement now underway in Pennsylvania.

Sixty of the 100 largest manufacturing corporations in America have plants in Pennsylvania. In addition to these, over 17,000 manufacturers, large and small, are actively engaged in business in Pennsylvania . . . with hundreds more being added every year.

Perhaps your business, too, could profit with a Pennsylvania location for your new plant or branch. We shall be glad to give you specific information on available sites, markets, labor, transportation, raw materials and other requested data. Write to the Department of Commerce, Harrisburg, Pa.

JAMES H. DUFF, *Governor*

ORUS J. MATTHEWS, *Secretary of Commerce*

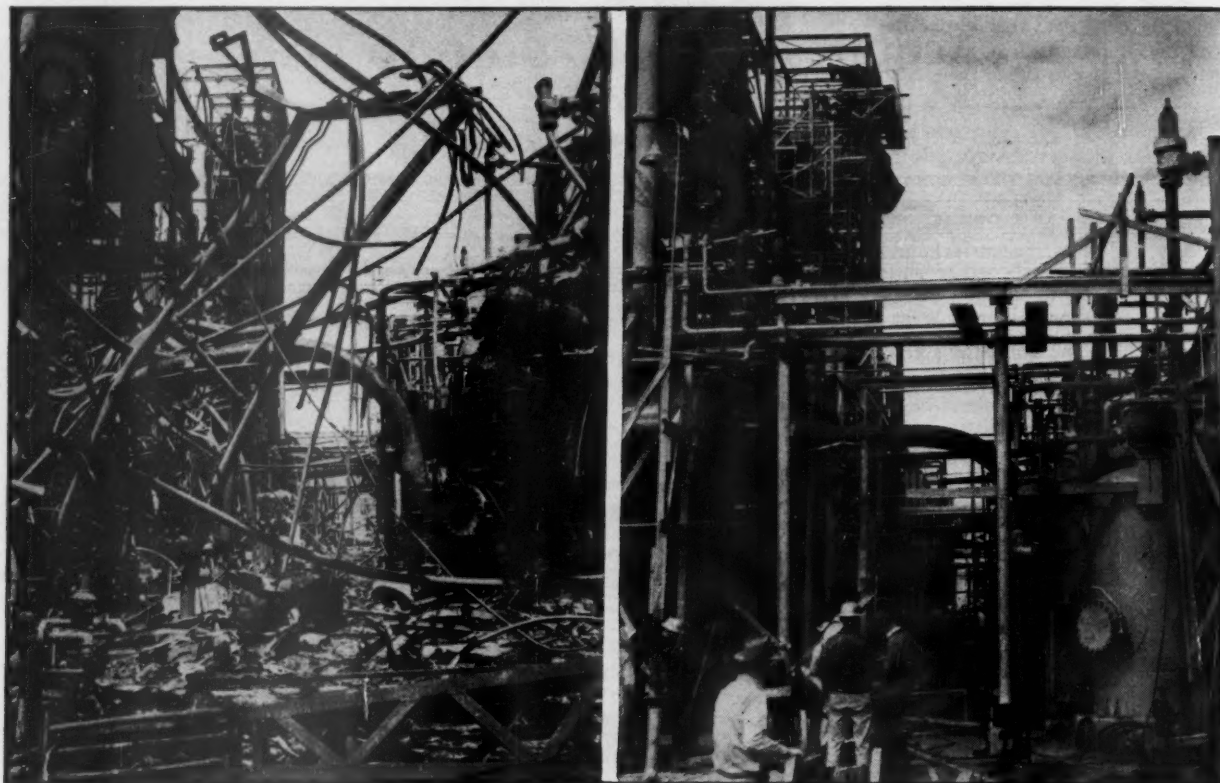
COMMONWEALTH OF
Pennsylvania

*In the heart of
the world's
greatest market*

NO

STATE PERSONAL INCOME TAX
STATE SALES TAX
STATE PERSONAL PROPERTY TAX
EXCESS PROFITS TAX

CITIES



THEN: After the havoc, Monsanto's plant lay in a mass of wreckage **NOW:** After a year of work, the plant is getting back to normal

Texas City And Its Industries Rebuild



MANAGERS for Monsanto, H. C. Eckert (left) plant chieftain, who was seriously injured in the disaster, and Josephy Mares, division head, look over reconstruction plans

First anniversary of huge explosion marked by new houses, new industries, and bigger plans for the future.

The bustling citizens of Texas City this week paused to observe an anniversary: Just one year ago a little French freighter, taking on a load of ammonium nitrate from one of the city's piers, wrenched the Texas skies like an atom bomb. The series of explosions that it touched off, plus the rain of bent steel that fell from the black cloud it belched forth, killed 500 people and laid the town low.

• **Recovery**—The smoke and dust had hardly cleared away when Texas Citians gritted their teeth and went back to work—rebuilding. The results of that work can be seen everywhere today.

Bright new buildings dot the main stem. Row after row of neat, white cottages now stand where the town's slums had been pancaked. In all, some 700 houses have been repaired, some

Now, VICTOR Adding Machines

with Completely Automatic CREDIT BALANCE

Adds, subtracts, multiplies, divides—and NOW automatically computes **CREDIT BALANCE**. Even more versatile than before, this famous all-purpose Victor Electric does more figure problems . . . accurately, quickly, and easily. Anyone can operate it.

Wherever fast, exact figuring is required—whether in giant corporations or the one-man business—you'll find Victors doing an outstanding job. They're precision built, sturdy—with a reputation established by Victor's thirty years of progress. See them now.

Now Add These VICTOR PLUS FEATURES!

- 1 Cushioned feather-touch keyboard and "live" control keys give speed, accuracy, ease of operation.
- 2 Light weight, about 15 pounds. Easily carried. Covers almost same space as 8½" x 11" letter.
- 3 Natural reading angle. Eye-ease colors cut glare, reduce operator fatigue, and eye strain.
- 4 Fully guaranteed. Nation-wide service points conveniently located to insure prompt, efficient service.



The world's largest exclusive manufacturer of adding machines. Now in our thirtieth year.

Flick!

Simply flick the "TOTAL" key and **CREDIT BALANCE** is computed and printed on the tape— instantly, automatically. No extra key! No extra operation! Fast, Easy, Exact.

Also available in full keyboard model—hand and electric.

VICTOR Adding Machine Co.

Chicago 18, Illinois

Direct factory branch offices and authorized dealers everywhere. Consult your local phone book for nearest representative, or write us.

FREE TO BUSINESSMEN: Victor will send you FREE, POSTPAID, "The Secret of Speed," a booklet of techniques for increasing the efficiency of your adding machine operators. Simply send name and business address to Victor Adding Machine Co., Dept. 2, Chicago 18, Ill.

When you march on
the small town market



SUCCESS
is a
HOUSEHOLD
word!

No trick to drumming up trade here! More than half of America's retail outlets are found in small cities and towns. And Household is the only big monthly aimed directly at this market!

But there's more to Household success than just reaching buyers. Household moves these bigger, better families to buy! With every issue, Idea-Planned editorial pages plant in their minds more than 255 practical ideas for easier, pleasanter living.

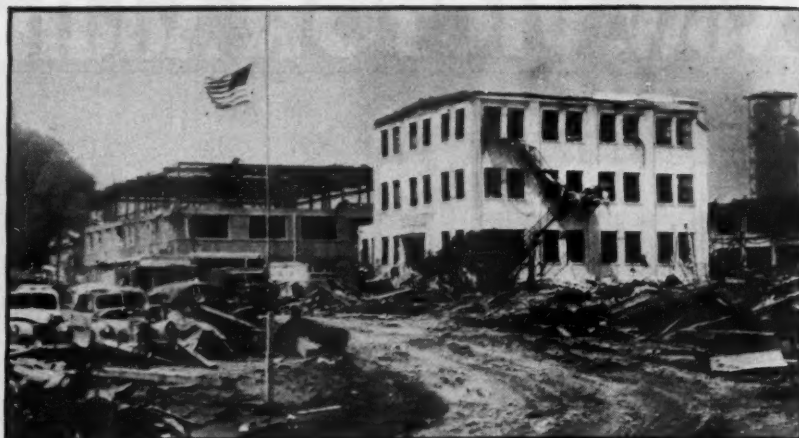
Today these big families have the greatest purchasing power ever. Yet Household continues to reach them at the lowest cost per page per thousand—\$2.25 for black and white, \$3.00 for 4 colors. No wonder "Success is a HOUSEHOLD Word!"

Four Steps to Success . . .

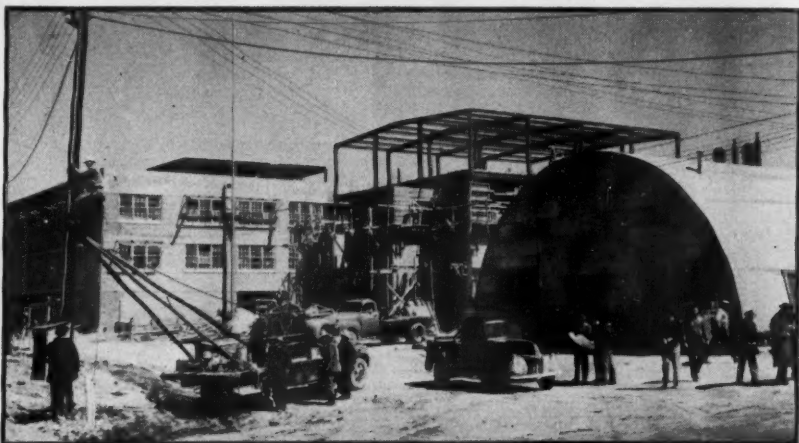
- Sparkling new Household format!
- 38% more advertising—more 4-color ads!
- New high circulation—over 2,000,000!
- Still the lowest cost per 1000 readers—4 colors, \$3.00; black and white, \$2.25.

Copper Publications, Inc., Topeka, Kansas

HOUSEHOLD
a magazine of action for small
cities and towns



AFTER BLAST, buildings at Monsanto plant looked as if they had been hit in a bomb raid. Autos were crumpled, debris littered the grounds. But the flagpole stood



TODAY, on the same spot, buildings are being rushed to completion. Quonset huts, like one in foreground, were thrown up to provide space for temporary offices



INSIDE HUT a crew of 80 engineers and draftsmen went to work on plans and blueprints for rebuilding. So far they have turned out more than 2,000 working drawings

500 new ones built. Another 900 houses and stores are now under carpenters' hammers; many more are on blueprints.

● **Growth**—Texas City has not only come back; it has grown. Its resiliency has attracted new businesses and new citizens. The town's population—18,000

a year ago—has climbed to 26,000 despite a still-acute housing shortage. Before the disaster, the town had 256 retail stores; this week it counted 290.

But the town is not without pockmarks. Some buildings are still placarded "unsafe." Quonset huts are re-



GUTTED MONSANTO WORKS lay directly across water from where French freighter blew up (under smoke in foreground) scattering wreckage and touching off other blasts



FAST BEING REBUILT, plant is now expected to be in operation in June. Plant makes styrene (for synthetic rubber) and polystyrene, a plastic molding compound

mindes of buildings and homes still needed. A trailer city of 500 on the city's outskirts helps take care of the overflow population.

• **Insurance Help**—Behind the story of rebuilding lies an outstanding chapter in the annals of U. S. fire insurance. For it was insurance money that first lifted the town to its feet after the blast.

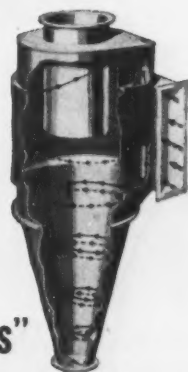
As soon as word of the havoc came to the National Board of Fire Under-

writers in New York, it set in motion its "catastrophe plan." Trained adjusters, representing member companies, rushed to Texas City to set up claim offices. In the time the adjusters were there, they processed nearly \$4-million in small property claims. Within two weeks after the first blow, checks for damage payments poured into the town.

• **Monsanto's Claim**—By far the largest single insurance claim that came out

in planning

Dust Recovery



The "Brass Tacks" Approach

is to get down to fundamentals. What equipment will collect dust particles in the sizes that count, with an efficiency you can count on, and at the most practical cost. . . . For economy, a system's got to be simple—without moving parts or need for maintenance. That means a Buell van Tongeren Cyclone, if you really want to trap the low-micron fines, too. Only the van Tongeren has the Shave-off, to put it in the high efficiency class. There's a Buell catalog that makes this all plain. Write for one, its "brass tacks" approach makes it easy to read. Buell Engineering Co., 60 Wall Tower, New York 5, N. Y.

buell

Engineered Efficiency in
DUST RECOVERY



1873

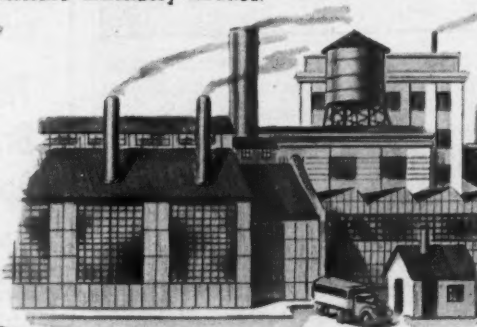
- Henry G. Keasbey and Richard V. Mattison open a modest drug manufacturing business in Philadelphia. Basic ingredient: Magnesium Carbonate.

In his spare time, Dr. Mattison experiments with a fire-defying fibre called *Asbestos*... seeking ways to use it for the benefit of humanity.



Further K&M research soon yields America's first *Asbestos* textiles in commercial quantities, America's first *Asbestos*-cement roofing shingles, and the first *Asbestos* Corrugated Sheets.

1886-reward! By blending *Asbestos* fibres with basic Magnesium Carbonate, he develops 85% Magnesia Pipe Insulation which today saves Industry millions of dollars annually in fuel.



1948

- what started as a small drug business is today a leading factor in America's giant and strategic *Asbestos* Industry!

This year marks the 75th anniversary of the founding of Keasbey & Mattison Company—the pharmaceutical firm that branched out into one of America's primary producers of *Asbestos* and Magnesia products.

Today, K&M "Featherweight" 85% Magnesia insulation is still one of the Company's basic products. But in addition, K&M also makes a complete line of *asbestos*-cement materials including shingles, pipe for water mains, corrugated and flat lumber, sheet packings, paper and millboard, textiles.

In celebration of the anniversary, K&M has prepared a brief, interesting history of the Company. We will be glad to send you a copy.

Nature made Asbestos...

Keasbey & Mattison has made it serve mankind since 1873



**KEASBEY & MATTISON
COMPANY • AMBLER • PENNSYLVANIA**

of the disaster was that of Monsanto Chemical Co. Monsanto's vast styrene plant, along with nearby oil refineries and tin smelters, spoon-fed Texas City into a lusty war baby. Monsanto's plant was right across a slim strip of water from where the doomed freighter was tied up (picture, page 47). The day after the explosion, it lay a twisted mass of wreckage.

Monsanto's insurance claim amounts to \$22,317,937—the largest of its kind in the history of U. S. fire insurance.

• **Suit**—Actually, Monsanto says, damage to its plant came to far more than this—more like \$50-million. So last week the company filed a suit for just that amount against the U. S. government. Its contention: The government was responsible for the explosion. The ammonium nitrate, Monsanto claims, was made, packed, and shipped by U. S. ordnance plants.

• **Decision**—Despite the devastation of the plant, Monsanto decided to rebuild. Edgar M. Queeny, Monsanto chairman, stoutly announced this intention even as he was on the spot looking after relief for the company's injured workers (BW—May 3'47, p76).

This week, as in the downtown area of Texas City, signs of new life at the Monsanto plant were clearly visible. But it had meant a year of back-breaking work. Salvage operations themselves had taken long months. More than 6,000 delicate instruments were damaged in the blast. More than 8,000 pieces of manufacturing equipment had to be dug out of the ruins and rebuilt or scrapped. In all, 6,000 tons of crushed and crumpled metal were sent to the scrap heap. Then, as plant manager A. C. Eckert (himself injured in the blast) put it: "We had to build a plant around what we had left."

• **New Start**—A crew of nearly 80 engineers went to work on plans in a Quonset hut. Later hundreds of freight-car and truck loads of new materials began to pour in—and the carpenters and riveters went to work.

The net result: Monsanto's rebuilt plant will be even bigger than it was before. The company has leased 50 more acres of land to expand on. It is planning new rail spurs, warehouses, storage tanks.

Monsanto is especially proud of its personnel record over the last year. Some 145 of its employees were killed in the blast, hundreds more were seriously injured. Yet today more than 95% of those who survived are still with the company.

• **Others Come Back**—Other companies that suffered damage have shown a similar determination to come back. Texas City Railway Terminal Co. has plans to rebuild its devastated docks (where the freighter was tied up). The terminal company already has its oil piers

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Cambridge Molded Plastics Company
Cardinal Products, Incorporated
Chicago Transformer Division
Essex Wire Corporation
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The Duralite Corporation
EKCO Products Company
Essex Wire Corporation
Ford Motor Company
General Electric Company
The Heaver Company
Kenton Plastics Corporation
Kingston-Conley Electric Company
Marion Power Shovel Company
Mercury Match Corporation
The Miller Company
The North Electric Manufacturing Co.
Portsmouth Steel Corporation
Pillsbury Mills, Inc.
Shellmar Products Corporation
Sorang Manufacturing Corporation
Steel Ceilings, Inc.
The Timken Roller Bearing Company
Westinghouse Electric Corporation
Wilco, Incorporated
Wise Allied Products, Inc.

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A list of these companies is shown at the left—space does not permit the publication of the names of the host of nationally famous industries that we have served for many years.

You, too, may profit by the experience of leading manufacturers who, having carefully surveyed the desirable locations in the country, have selected this locality for their factory sites.

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back to work. But it is waiting for settlement of its insurance claims to rebuild its dry-loading docks. The company, jointly owned by three railroads, has also sued the government for \$5-million.

Pan American Refining Corp. has bought land for room to grow on. Carbon & Carbide Chemicals Co. has started a two-year building program that will make its plant there one of the largest of its type in the country.

• **Self Help**—Texas Citians have made their comeback with little more than emergency help from the outside. Soon after the disaster, there was talk of a \$15-million federal grant for rehabilitation. But as news of the disaster dropped from newspaper front pages, so did any hint of the grant.

Of course, the injured and homeless welcomed the \$1.3-million that the Red Cross reported it spent on relief, and the \$1,063,000 that sympathetic Americans poured into the Texas City Relief Fund. But the total of these two sums were only a drop in the bucket beside the total individual property loss, which counted in the tens of millions. So today Texas Citians prefer to finance projects themselves rather than let in outside capital.

• **\$100-Million Program**—All in all, folk in Texas City are pleased over the number of projects the city and its industries have planned, too. Some estimates bring the total rehabilitation program to more than \$100-million.

Maine Asks \$100-Million To Revive Quoddy

The Passamaquoddy Power Project—long a sick duck—has begun to quack again. The sounds are being heard in Congress where a bill to revive the project has been introduced.

• **Power Shortage**—Last winter's power drought in Maine is behind the latest Quoddy revival. Many factories had to shut down. So the idea of harnessing the ocean to power generators has strong local appeal.

Another pro-Quoddy argument: A revived power project could be vital to national defense. And it would draw more industries to the region.

The new bill would cut Canada in on the deal. It calls for a \$100-million appropriation to put up the necessary installations for low-cost power.

• **Utilities Question**—How the private utilities—Central Maine Power Co., and Bangor Hydro-Electric Co.—will react is a question. Quoddy backers are trying to avoid a scrap with them. They say their plan does not discriminate against any existing power companies.

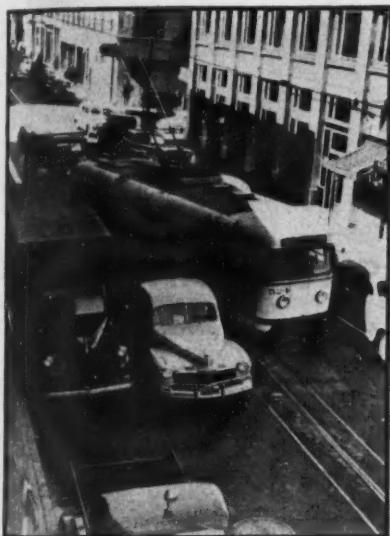
The private power people meantime are keeping mum. From where they

sit, the chances for a new Quoddy probably look pretty slim anyway.

If the drive makes any headway, however, the private-vs.-public power fight will break into the open. The big issue, of course, will be power rates.

• **An Answer?**—Is a new Quoddy the answer to Maine's problem? Some think not. They say there isn't enough population density or enough industry to make Quoddy worth while.

But around Lubec, where a "revive Quoddy" rally was recently staged, the tide is running strong. The audience—after \$100-million—cheered good news: The town of Machias had voted \$50 to the cause.



BATTLE OF THE BUSES

There's trouble over trolley buses in San Francisco. The Municipal Ry. has a few, which have been doing a good job in the narrow streets (picture). The railway had planned on buying about 400 more to handle most local transit.

Then Mayor Elmer E. Robinson called in Col. Sidney H. Bingham, New York transit expert, who advised the city to take emergency action to replace wornout equipment. Bingham declared for motor buses instead of trolley buses. His reasons: They are more flexible to use, can be delivered 12 to 18 months sooner, and won't be affected by the California power shortage (BW—Mar. 20 '48, p. 21).

But this has built a fire under the supporters of trolley buses. They point to polls which show that passengers in many cities prefer them because of smooth, quiet operation.

Meanwhile, the Cincinnati Street Ry.—which already has more than 100 trolley buses—has just received 30 more of them from the Marmon-Herrington Co., Inc., of Indianapolis.



Offices: 270 Madison Avenue, NEW YORK 16; 3641 Washington Ave., CHICAGO 32; 735 Battery Street, SAN FRANCISCO 11; and other principal cities. IN CANADA: Meredith, Simmonds & Co., Ltd., Toronto and Montreal. (IN ENGLAND: National Adhesives, Ltd., Slough.)

WHEN ENVELOPE SEAMS POP OPEN in humid or wet weather there's double trouble. You've got it. The user has it. Especially, if the envelope contains securities, bank clearances or other valuable papers.

That's why a great shout of welcome went up when NATIONAL successfully introduced DURA-SEAM. It's a liquid Resyn* adhesive for back seams. It's weather-proof, mould-proof, tamper-proof.

DURA-SEAM provides envelope security. It's not only humidity-proof, it is actually water resistant. As a result, it securely bonds kraft and other normally difficult wet strength papers... prevents tampering because its bond strength exceeds that of the paper... flexes easily if the envelope is overstuffed.

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MARKETING



THE PRESIDENT: Sherman Sexton



THE PRODUCT: spices milled by Sexton

Wholesaler Adds Retailing

John Sexton & Co., leading institutional grocer, branches out after 65 years to sell quality foods to general public through selected independent grocers. It won't need bigger sales force.

Outside the food trade, the name of John Sexton & Co. is little known. But that industry knows the 65-year-old Chicago firm as the leading institutional wholesale grocer. And this week Sexton is in the midst of a program to establish the same reputation with the general public.

Unlike other national wholesale grocers, Sexton & Co. has always sold only to such big food buyers as restaurants, hotels, clubs, and hospitals from coast to coast. Now the company is adding retail grocer accounts to its flourishing institutional business.

● **New Approach**—The move represents a new approach to the independent retail grocery market. Sexton will not try to carry on a general wholesale business, supplying Sexton-label food products to the general retail trade. Nor will it attempt to organize voluntary chains to help independent retail grocers compete with the big food chains.

Instead, the firm will place the Sexton line in selected retail outlets. The line includes canned goods, meat specialties, jams and preserves, spices (picture, above), coffees, teas, relishes, sauces, and salad dressings. Only one outstanding retailer in a trading area will carry Sexton foods. Emphasis will be on quality products, in a single top-grade line.

● **Experiment**—Sexton started its new venture on an experimental basis last

year. First move was to offer Sexton-label foods through the grocery departments of department stores. Early handlers of the Sexton line were: Wanamaker's New York and Philadelphia stores; the Joseph Horne Co., Pittsburgh; Rich's in Atlanta; Gimbels in Milwaukee; Nieman-Marcus in Dallas. In a few cities where no large department store operates a grocery department, Sexton has placed its foods with a quality independent food retailer. About 150 retail outlets now sell the Sexton products.

Success of the experimental program has convinced Sexton executives that there's a solid retail market for their merchandise. Hence came the decision to expand the program. Sexton expects to line up 2,500 retail outlets for Sexton label foods this year.

● **No Big Change**—The step means little change in the firm's organization for supplying institutional food buyers across the country. Because only selected retailers will carry the foods, there will be no need to add to the sales force that now calls on the restaurant and hotel trade. Retailers can be supplied from existing branch houses and the seven manufacturing plants which the firm now operates. Only major alteration needed: equipment for packaging products in consumer-sized containers.

The big advantage Sexton sees in the

move is added volume for a growing list of products it makes itself. The firm now offers 209 different food items. It expects to add more as demand for Sexton products grows. It now mills its own spices, imports and roasts its own coffee, packages its own imported teas.

• **Selling Points**—Sexton officials regard the exclusive marketing method as a protection for the independent retail grocers' investment. Big attraction for the retailer, as they see it: a sure markup on a quality line that no competing merchant offers.

Sexton products will carry a distinctive but conservative red and white label. Like the restaurant- and hotel-size containers, Sexton consumer containers will tell the number of servings in each can or package, and bear other useful consumer information.

• **Advertising Plans**—So far, advertising of the line has been carried on by retailers who offer the Sexton foods. Later, as the program expands, Sexton plans to support retailers' efforts with its own advertising program.

Present head of the firm is Sherman Sexton, son of the founder, John Sexton, who started the business in 1883. This year, sales are expected to reach \$34-million.

BONUSES AND SALES

Retailers could see a lot of factors this week that may keep post-Easter sales riding high. An important one is the \$1.5-billion which some states will hand out to veterans as bonuses this year (BW-Apr.10'48,p21). In these states, retailers are figuring to take a good slice of the bonus; storemen in areas that have no such payments will be counting on European aid, the tax cut, and the war scare to keep things going.

Here's how the total figure breaks down for states that have authorized bonuses (some of the smaller payments have been made):

New York—\$400-million (raised by bond issue).

Illinois—\$385-million (bond issue).

Ohio—\$300-million (bond issue).

Michigan—\$270-million (bond issue).

Connecticut—\$50-million, provided in an appropriation (probably nearly all paid).

Rhode Island—\$19-million for veterans, \$500,000 for merchant mariners.

New Hampshire—\$6-million, appropriated in 1943 and 1945 for \$10 a month up to \$100.

Vermont—\$1.5-million appropriated in 1942 for \$10 a month up to \$120.

Massachusetts—No total figure, but state has authorized \$100 per veteran plus \$100 additional for domestic service, plus \$100 more for overseas service. The top is \$300 per man.



Counter Intelligence

Manufacturers of appliances show sound forethought when they equip their products with General Electric Flamenol® cord sets. It's the smart way to add that extra touch that spells out S-A-L-E-S.

On a wide range of products—lamps, fans, clocks, radios and other light-duty appliances—these durable, attractive cord sets catch the eye and attract the customer.

General Electric Flamenol cord sets make friends for your products after they are sold, too. They won't fray or kink or come apart at the seams. The plug is strong, and holds the prongs in

firm alignment. The cord's smooth, thermoplastic insulation resists oil, acids, water, and grime—and it's a cinch to keep clean.

These smart cord sets are readily available in standard ivory or brown, in 6-, 8-, and 11-foot lengths. Special colors and designs can also be supplied to individual specifications.

If you have a slow-moving cord-equipped item in your line, perhaps a General Electric Flamenol cord set is just what it needs to make it sell. To get the facts, write to Section Q13-410, General Electric Company, Bridgeport 2, Connecticut.



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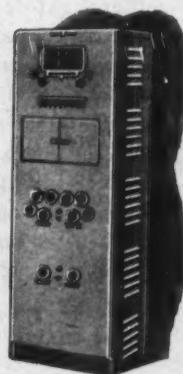
How often has an important customer had to wait on the other end of a long distance telephone call while you tried to locate the one man who could answer his questions!

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NATURAL VOICE SOUND EQUIPMENT



More Oil Burners?

1948 outlook depends on how much fuel oil there is; prospects are uncertain, the Oil-Heat Institute hears.

The nation's oil-burner industry took a long look at business prospects last week. It didn't like what it saw.

The occasion was the annual meeting in Chicago of the Oil-Heat Institute of America, trade association of the industry.

• **All Depends on Oil**—The controlling factor in oil burner sales is the fuel-oil supply—no oil, no burners. Supplies, tight through the past heating season (BW—Feb. 14 '48, p21) are going to stay that way for two or three years; that was the unvarnished forecast of Robert E. Wilson, chairman of the board of Standard Oil Co. (Indiana) to industry men.

Even R. S. Bohn, institute president, spoke of the cutback in oil-burner production, forced by the oil shortage. The industry turned out 888,000 power-driven burners in 1947; Bohn put the 1948 output total at 500,000.

• **Estimates**—Here's what he based this figure on: an estimated 350,000 new installations (in new homes or in those formerly using other fuels), plus 150,000 burners to replace old equipment in homes already using oil. To make the grade on replacements will mean increasing such sales 2½ times over the 1947 rate; last year's replacement business accounted for 62,160 burners.

The 350,000 new burner installations would raise the total of domestic burner users 10% (at the end of 1947 some 3.5-million homes were heated with oil). So fuel-oil requirements would go up around 10%, as well. Bohn spoke optimistically about the prospects for enough fuel oil to supply these new users.

• **Just Whistling**—But more than one listener felt Bohn was whistling in the dark. Wilson's comments fortified that feeling.

The petroleum industry, Wilson said, probably will produce, transport, and refine 7% or 8% more oil this year than last; "but it does not mean that we will be able to take care of a further increase of 7% or 8% of new oil burners in 1948," Wilson's reasons:

(1) It will take at least 2% of that increase in oil supply to replenish stocks, forestall spot shortages such as occurred last winter.

(2) The remaining 5% will go to supply new oil burners that were installed in the latter half of 1947 and, therefore, did not use their full yearly quota.

INTERNATIONAL PETROLEUM EXPOSITION

*A piece of America's
greatness you may never see*

From May 15 to 22, thousands of business leaders from all over the world will flock to Tulsa. The International Petroleum Exposition is probably the greatest single display of the reasons for America's world position.

Oil companies will display their latest tricks; suppliers their latest equipment, which makes those tricks commercially.

Dresser, among its multiple displays, shows the Kobe oil-well pump, doing, in thirty minutes with one man, what formerly took eight hours with four men. Also its Ideco Rambler Rig, a towering derrick, formerly fixed expense for every well, now truck-mounted. After the show, it will telescope and roll away to work. And Dresser shows its Clark Midget compressor, a 300 h.p. machine, engineered with such precision balance that it can be skid-mounted.

Unique within this mammoth exhibit, Dresser Industries' section is the only one which spans the entire field, engineering ahead of the trend from well to pipe line to refinery.

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Huntington Park, Calif.

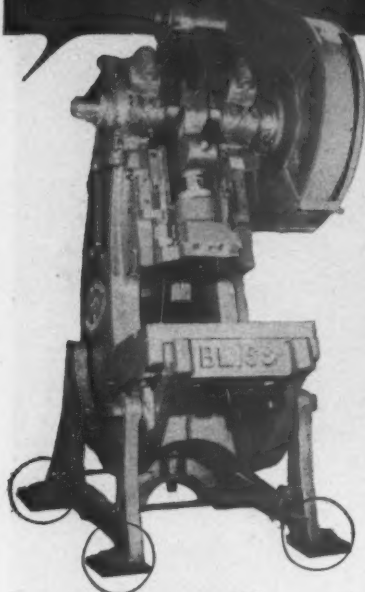
PAYNE Furnace Co.
Beverly Hills, Calif.

ROOTS-CONNEVILLE Blower Corp.
Connersville, Ind.

SECURITY Engineering Co., Inc.
Whittier, Calif.

STACEY BROS. Gas Construction Company
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UNISORB absorbs from 60% to 85% of transmitted vibration and noise. This results in substantial reduction of building and machinery repair, maintenance and replacement. This same noise and vibration absorption helps, moreover, toward lowered worker fatigue.

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SHOPPERS at A. & P.'s self-service meat market can watch wrapping girls at work

Meat Prepackaging—A New Try

A. & P. installs 100% self-service meat department in Cambridge (Mass.) supermarket. Sales zoom 60% in first three weeks.

The worst bottleneck in food stores is the meat department. Reason: Each separate sale takes time while the customer talks over her purchase with the butcher, and then as he cuts, trims, weighs, and wraps the order. So, long lines of customers often wait to be served—particularly on Fridays and Saturdays, the heavy shopping days. This means some loss of trade for busy stores, because many customers refuse to stand in line and wait.

• **Answer**—One solution suggests itself immediately: self-service, through prepackaging. It has been tried many times in many forms; but no surefire technique has been found. Two principal drawbacks have always remained:

(1) Customers who don't see just what they want in the prepackaged displays walk out and buy their meat elsewhere;

(2) Since fewer men are needed behind the counter and since even these don't have to be skilled butchers, the butchers' unions object strongly.

This week the Great Atlantic & Pacific Tea Co. was in the midst of a test of a new kind of self-service meat operation designed to get around these problems.

• **Experiment**—A. & P. has put a 100% self-service meat, poultry, and fish department in a big supermarket in Cambridge, Mass. It has a hostess who handles orders for special cuts not available in the self-service cabinets. And it uses as many butchers as the old meat de-

partment did—to cut, trim, weigh, and package the meat behind the scenes.

What, then, are the advantages to A. & P.? The company sees several. Among them:

(1) **More meat sales** with no increase in number of butchers. In the first three weeks of the test the department handled between 10% and 15% more customers, who bought 60% more meat (dollar value).

(2) **More food business** for other store departments. Many new customers have been attracted to the store by the time-saving at the meat counter.

(3) **Stabilization of jobs.** Under the old system, there wasn't enough work for the regular staff to do on the slack days early in the week. And on busy Fridays and Saturdays, part-time workers—often hard to find—had to be hired to handle the rush. Now the regular staff keeps busy early in the week cutting and packaging meat to get set for the week end.

• **The Setup**—The new department has 73 ft. of refrigerated cabinets. They hold 125 varieties and cuts of meat, plus poultry and 30 varieties of fish. There are scales at the self-service counter for suspicious customers.

The installation required a heavy investment in machinery and equipment. The refrigerated cutting room has a few automatic slicers and a power saw for cutting up carcasses. From there the meat is transported on a conveyor to the wrapping and weighing room (pic-



GENERAL OFFICES



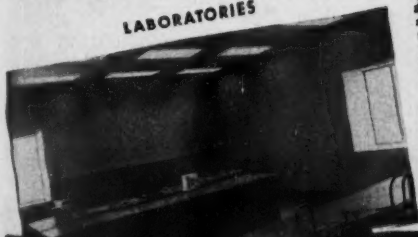
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HOSPITALS



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The important facts about HAUSERMAN Movable Steel Walls are in this new book - *Ready to be mailed to you FREE!*

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And Thousands of Others

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Kimberly Clark Corp.

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Parke, Davis & Company
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And Many Others

There are many different types of Hauserman *Movable Steel Walls*. They are easily adapted to the specific partition and wainscot requirements of all non-residential structures, large or small. Hauserman *Movable Steel Walls* can be quickly and exactly adjusted to constantly changing requirements in floor space. They eliminate the mess, dust and dirt of weeks-long tearing down and rebuilding of masonry-type walls. Nor does the moving of Hauserman *Steel Walls* disturb office routine and efficiency.

Hauserman *Movable Steel Walls* can save you money, whether you are remodeling a small office area or building a great new structure. Actual Hauserman installations in your particular type business can be shown to you by your nearby Hauserman Branch Office or Sales Representative.

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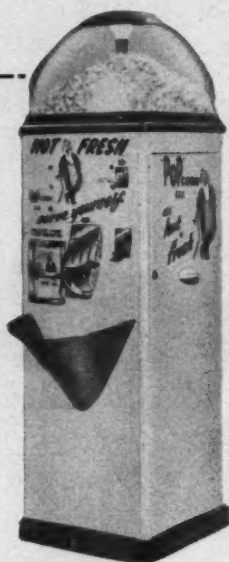


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It's a Fresh Idea

*It's a
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'Pop' Corn Vending Machine built for Auto-Vend, Inc., Dallas, Texas, by Texas Engineering and Manufacturing Company, Inc. Plexiglas dome fabricated by Texa-Plastics, Fort Worth.

In 30,000 locations throughout America, you'll find 'Pop' Corn Vending Machines on the job. Step up to one and see how crisp and enticing pop corn looks—through crystal-clear PLEXIGLAS. Then drop in your dime and *taste* how delectable pop corn can be—kept clean, fresh and crunchy by the PLEXIGLAS dome.

Auto-Vend, Inc., purveyors of 'Pop' Corn, use only PLEXIGLAS domes on their automatic, electric vending machines. Most have been on duty—day in, day out—for more than a year.

PLEXIGLAS, you see, is *versatile*—light, shatter-resistant, durable and non-discoloring. You can mold or form it easily—machine it, carve it, turn, cut, saw or thread it just as you do wood or metal. PLEXIGLAS is *beautiful*—sparkling, optically-clear, available in a limitless variety of colors, and is adaptable to a thousand and one unusual applications.

If your products—or their components—utilize wood, metal, plastics or glass, you'll want to know more about PLEXIGLAS. And we want to tell you about it! Just drop us a line today, and we'll send you full information plus samples.

PLEXIGLAS is a trade-mark, Reg. U. S. Pat. Off. for acrylic resin sheets, rods and molding powders manufactured by Rohm & Haas Company.

ROHM & HAAS COMPANY

PHILADELPHIA 5, PENNSYLVANIA



STAINLESS-STEEL CONVEYOR moves cut meat to girls for weighing and wrapping

ture, above). The wrapping operation, on an assembly-line basis, is almost automatic. Special equipment in this room includes stainless-steel tables and the wrapping machinery. Two women weigh the cuts, five handle the wrapping.

• **Problems**—There are still some bugs in the operation:

(1) The workers are still too green, and the system is still too new, to run at top efficiency.

(2) It may be that the boost in sales will not be enough to make up for the extra help (hostess and wrappers) and the big investment in equipment.

(3) Some prepackaged cuts of meat just don't seem to sell. A. & P. thinks this may be often due to unattractive packaging. After 48 hours they are taken out and rewrapped; up to now they have usually sold after that.

(4) Labeling has been a big headache. At the start it was found that attaching labels to the outside of the cellophane packages discolored the wrapping. Then labels were put inside the packages, but this wasn't satisfactory either. This week a new method for sealing outside labels—supposed not to spoil the package—was tested.

(5) No really satisfactory wrapping has been found yet. A du Pont product called M.S.A.T. No. 80 was tried (the initials stand for moistureproof, heat-sealing, anchored, and transparent). But this didn't work with red meats and some others; it didn't allow them to "breathe." Now another du Pont product—L.S.A.T.—is being tried (the L. stands for "less moistureproof"). A. & P. is also experimenting with Goodyear's Pliofilm film.

• **Union Angle**—The Cambridge store's butchers belong to a small, unaffiliated

union. So A. & P. hasn't tangled with the A.F.L. yet. It may have trouble when it does if it tries to expand the idea throughout its chain.

Last week Earl W. Jimerson, president of the Amalgamated Meat Cutters & Butcher Workmen (A.F.L.) said in Chicago that the prepackaging plan would "do away with a lot of jobs. . . . We're opposed to it unless we can control the jobs." He went on: The plan would bring a lot of lower-paid help into the stores who don't have the skill needed by butchers; all would have to join the union.

FTC STRIKES AGAIN

You can't use a seller's market or consumer preference for your brand to high-pressure wholesalers into handling it exclusively. That's the gist of a Federal Trade Commission complaint against the National Pressure Cooker Co., Eau Claire, Wis. The company is the world's largest manufacturer of pressure cookers and pressure canners, according to FTC.

FTC charges the company with (1) lessening competition by selling its cookers to wholesalers only on condition that the wholesalers drop competing products, and (2) requiring wholesalers to give firm orders for an entire year's delivery—and then refusing to ship against those orders unless competing lines are dropped, or orders for competing products are cancelled.

The pressure cooker charges do not threaten the wide variety of dealership and agency agreements between a manufacturer and his distributors or retailers—unless there is intent or effect of eliminating competition.

LEE CUTS TIRE PRICES

Last week the Big Four tire companies set out to boost sales in an over-sold market by introducing second- and third-line casings at lower prices (BW—Apr. 10'48, p28). This week one of their smaller competitors went one better,

Lee Rubber & Tire Corp. cut the price of its standard de luxe line by 15%, thus bringing it into the price range of the other companies' second-line tires. And it will market a new, super de luxe casing at the price formerly charged for the de luxe.

Lee's 600 x 16 de luxe tire formerly sold for \$15.25—the same price several other makers charged, and are still charging, for their first-line grade. Lee's new price is \$12.95—even cheaper than a couple of the second-line tires announced last week. The new super de luxe will be a four-ply tire with an eight-rib tread; the de luxe grade has a five-rib tread.

Lee sells through oil companies, independent dealers, and its own stores.

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Farquhar Spray Coolers do the cooling job in one speedy, continuous operation. The first two spray headers use hot water for tempering the glass, the remaining headers use tap water. Pumps recirculate both hot and cold water, holding water consumption to a minimum.

When required, Farquhar Pasteurizer-Coolers do the combination job faster in one complete operation—eliminate extra handling from pasteurizer to cooler. The glass containers are carried from pasteurizer to cooler on a continuous galvanized woven-wire belt.

You can operate Farquhar Spray Coolers and Pasteurizer-Coolers at any required speed. Both units are built in various sizes to handle any capacities.

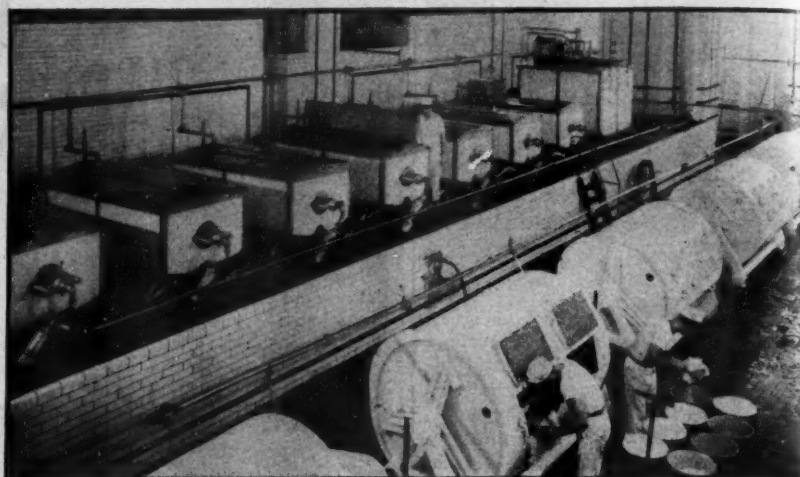
For complete information write to the
A. B. Farquhar Co., Special Machinery Division,
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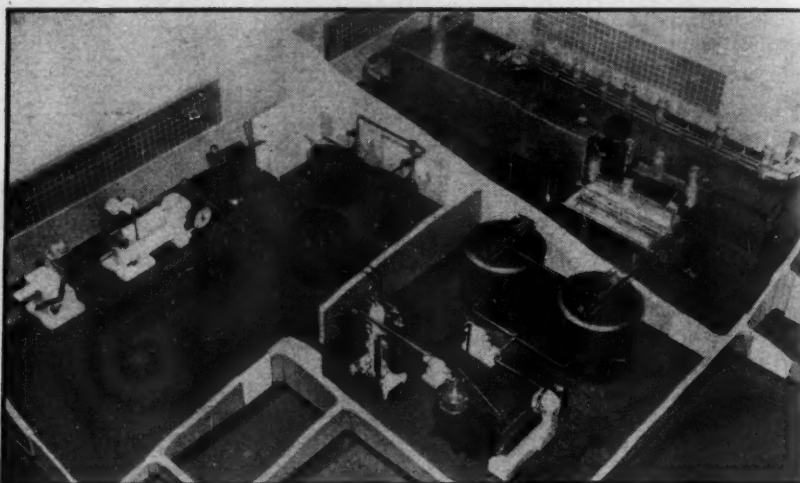
**FOOD PROCESSING
MACHINERY**

BRINE PRESSERS • CLEANING UNITS • TUMBLING TANKS
CONVEYERS • SPRAY COOLERS • PASTEURIZER-COOLERS

PRODUCTION



Today in conventional buttermaking, cream from pasteurizers (rear) is handled in batches at the churns (foreground), which are emptied by hand into tubs



Tomorrow? In Cherry-Burrell Processing, cream is pumped from receiving vats through pasteurizers, standardizers, and chillers, becomes butter

Streamlined Buttermaking

Two companies develop machines that turn out butter fast and continuously, replacing centuries-old churn method. Both methods promise economies, may bring important changes in creameries.

Dairy technicians have spent years studying methods to speed buttermaking. Their aim: a super-clean, streamlined plant in which cream would go into vats at one end, pass through a series of machines and processing tanks, come out at the other end in an hour or less as wrapped packages of butter.

• **Success**—Last week it looked as if the researchers' dreams were coming true. Two Chicago companies, Cherry-Burrell Corp. and Creamery Package Mfg. Co.,

were turning out continuously made butter at pilot plants. And Cherry-Burrell was in the midst of a six-plant installation program—in Illinois, Minnesota, Iowa, Ohio, Wisconsin, and probably Oklahoma.

Back of the imminent commercial application of the new methods lie years of work. A conventional plant (picture, above) makes butter in batches, a churnful at a time—just as in Biblical times. First, cream is pasteurized, then cooled

VESSEL DIVISION

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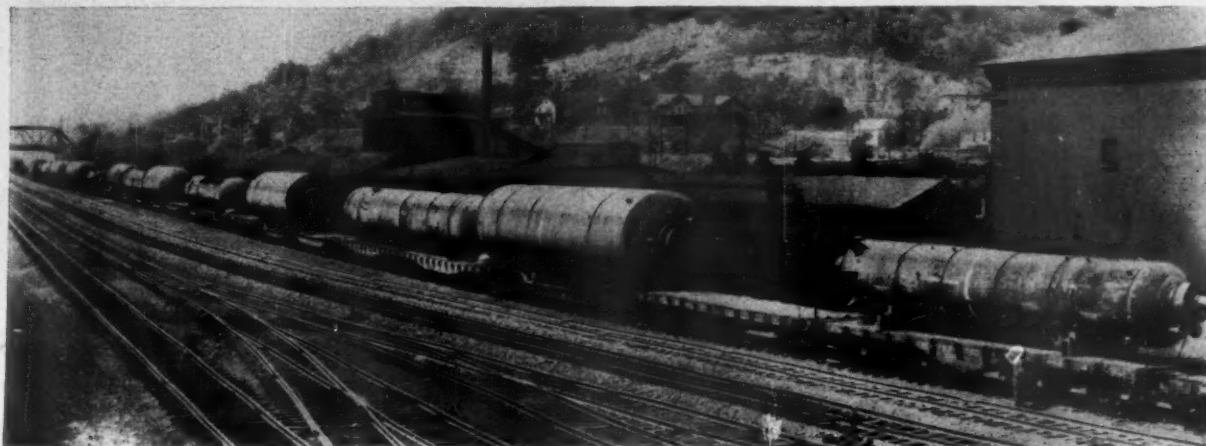


STRESS-ANNEALING BY THE INCH! (*above*) When a vessel is too long, or its diameter too great, to fit into one of the monster A.O. Smith furnaces, the engineers devise a portable furnace and stress-anneal section by section and the final closing seam.



MILLION ELECTRODE MAN. (*above*) In his twenty-one years of painstaking welding on SMITHway pressure vessels, John Binder has used up 975,744 SMITHway electrodes—at last count!

REFINERY ON WHEELS! (*below*) Not long ago this train pulled out of the A. O. Smith yards bearing almost the entire vessel equipment for a completely new refinery unit. The single shipment included coking drums, fractionating towers, stripping columns, flash chambers and coke chambers.



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and tempered. This takes five hours. Churning takes an hour to an hour and a half. Then the butter is aged for 48 hours. Churns handle 2,000 lb. at a time. The goal of the researchers was to do

away with batching, save time, improve process control (and butter quality), and cut manufacturing costs.

• **Ten-Year Project**—Work on continuous methods started almost a decade

THE PRODUCTION PATTERN

AT A QUICK GLANCE, one freight car looks just like another. But to a carbuilder, they may be far from alike. Freight cars, built for different railroads for the same basic jobs, are seldom twins. They differ—often by fractions of an inch—in height, length, and width. Some have special types of brakes, doors, vents. Others, like refrigerator cars (BW—Feb. 21 '48, p50), must have pine interiors if they are for southern roads; fir interiors if they are for western roads. The list of variations is long—and, productionwise, expensive and time-consuming.

This all came about because railroads, traditionally, have maintained their own engineering staffs to design rolling stock. There's no difficulty in this system when the road builds its own cars in its own shops. But when work is farmed out to big carbuilding companies, different designs from different railroads tend to gum things up. As a result, freight cars are more or less custom-built.

Pullman-Standard Car Mfg. Co., not long ago, tried to do something about this. The P-S. idea: a "package" box car. This is a car built to standard specifications, mass-produced at lower cost, and sold to any railroad. Last week, P-S. opened a third assembly line for package-car manufacture—a sign that the standardized car idea is making some headway.

LACK OF STANDARDIZATION in most freight car designs is a factor in the present shortage. To be sure, lack of steel, component parts, and delays in delivery of production equipment are at the top of the list. But more widely accepted standardization could snap up a part of the production lag. For, while some degree of it already is in practice, there's not nearly enough.

Here's a typical example. One leading builder has just completed a 500-car order. His next order is for the same type of car, for a different customer. At a quick inspec-

tion, both cars, except for trim, seem identical. They'll probably be used on the same train many times. Nevertheless, they are different enough to make the builder shut down for retooling and readjustment of techniques and machines. The railroads pay plenty in cash for this, of course—but they also suffer because changeover time cuts down monthly production of the cars they need so badly.

Lack of standardization also ups labor charges. Suppose that a certain car truck requires 10 men for assembly on the car. The next order is for a more complicated truck that takes 20 men for assembly. So 10 more men are hired. A third order is easy: That truck needs only eight men. What happens to the extra 12 men? They stay on, and the third customer pays their way.

MANY MANUFACTURERS are struggling to get more standardization into their specifications to cut costs, boost output. Freight car design could stand such study. Specification based on performance rather than on materials and techniques is one key to the problem. An open mind on structural design methods is another.

Greater, more intimate knowledge of production problems by the men who specify would help. Such knowledge, for example, would cause them to consider the facts before placing a 3,000 car order in three different car shops. Each shop has to tool up; tooling costs are spread over smaller runs; problems of supply multiply. Production-minded engineers weigh such problems against meager time gains in output. Sometimes it might be good business to split an order. More often than not, it's costly.

In a strictly competitive field like passenger-car travel, rugged individualism in design specification might pay off in terms of sales appeal—and bigger income. But in conventional freight cars, slight specification changes won't do much to drum up more business.

ago in Switzerland, Germany, Australia, and the U. S. During the war, Germany had more than 50 continuous butter-making plants in use. After the war, several German machines were brought over here for test and study. The American Butter Institute's Research Committee, under contract with the Army, worked on two of the devices. But the committee's report was discouraging: Only radical changes in the machines would make the German methods practical here.

National Dairy Products Corp. began experimenting with the idea in 1940, with Cherry-Burrell cooperating. Cream-

ery Package Mfg. Co. also went to work on a process several years ago.

• **Slow Work**—Both Cherry-Burrell's and Creamery's systems are now well past the experimental stage. But development work had proceeded slowly, because:

(1) Many types of butterfat are found in the U. S.; and

(2) Processing is difficult because cream is an almost perfect emulsion (mixture) of complex components difficult to break up.

In conventional processing, the churn does this breaking up. To make butter, the cream emulsion of fat in water must



Underground Spray Warms in Winter . . .

The Horne copper mine of Noranda Mines, Ltd., in northern Quebec has to be well ventilated to combat gases, like many another mine. But the outside air that's blown in is too cold in the winter, too hot in the summer. The Horne people are

licking this problem with a novel air-conditioning system. To warm the sub-zero air in the winter, it is passed through a fine water spray over an abandoned mine chamber (above). The air picks up heat from the water.



...Makes Ice Cube for Summer Cooling

In the winter process, the water, of course, gets so cold that it freezes and fills up the chamber with ice (above). The "ice cube" is 250 ft. high, weighs 30,000 tons. In the

summer, the hot ventilating air is circulated past the ice cake, dropping temperatures as much as 15 deg. It cost Noranda about \$10,000 to put in the system.

LIFEBUOY GILLETTE CALVERT SHEAFFER WILDROOT

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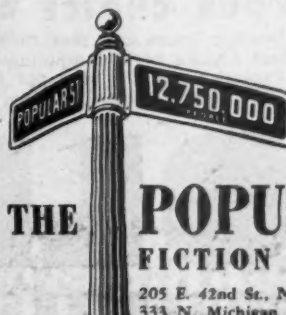
National advertisers are finding that they can sell *more* goods at lower cost by introducing their products to the 12,750,000 readers of The POPULAR FICTION GROUP.

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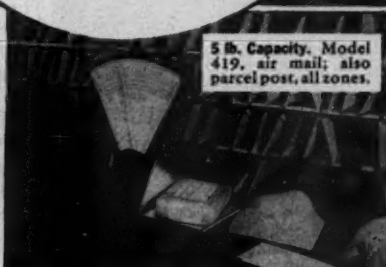
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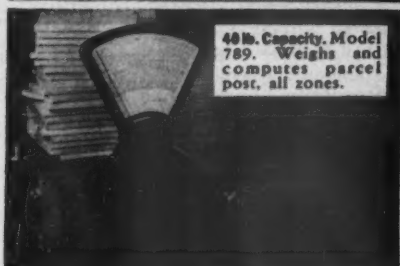
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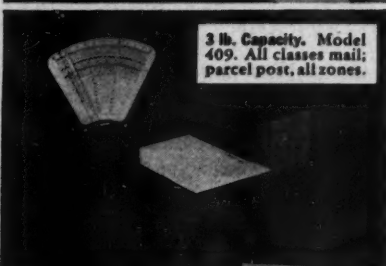
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5 lb. Capacity, Model 419, air mail; also parcel post, all zones.



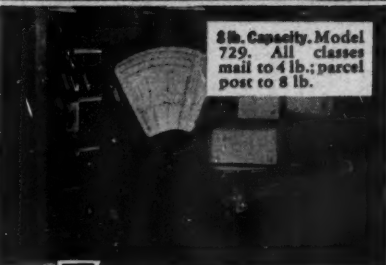
40 lb. Capacity, Model 789. Weighs and computes parcel post, all zones.



3 lb. Capacity, Model 409. All classes mail; parcel post, all zones.



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TOLEDO

HEADQUARTERS FOR SCALES

be reversed to make an emulsion of water in fat. That's not easy to do on a continuous basis. But both new methods do it.

• **Cherry-Burrell**—How do they work? The Cherry-Burrell method (lower picture, page 60) starts with unpasteurized cream. The cream is heated to more than 100F, and a special separator divides the cream into three products: (1) a cream concentrate testing 86% to 90% fat content, from which the butter is made; (2) skim milk; and (3) heavy curd.

The cream concentrate is then pasteurized in a few seconds at temperatures as high as 200F. Next, the highest cream is pumped into standardizing vats; there its composition is changed to butter—a function performed by the churn in present systems. It is then chilled, worked, and squeezed out into the final consumer package.

• **Creamery Package**—The Creamery Package method, on the other hand, starts with pasteurized cream. It is heated and separated to a cream with a fat content between 75% and 80%. The hot concentrated cream is fed into an emulsion breaker which destroys the normal cream emulsion.

Then the broken cream is separated into a highly concentrated liquid fat and a waste liquid. A composition-control pump with three pistons sucks up (1) the liquid, and from other containers, (2) enough moisture, (3) salt and other ingredients to develop the desired composition in the final product. The final steps of cooling, working and packaging the butter parallel those of the Cherry-Burrell method.

Creamery Package, which makes a line of dairy and food plant equipment similar to that of Cherry-Burrell, has a pilot installation for continuous butter-making in a large midwestern butter plant. According to G. W. Putnam, vice-president of Creamery Package, the company is happy with the technical results thus far. Several more installations are now in the works, and the company expects to have the machines on the market in 12 to 18 months.

• **Speed**—The Creamery Package method has a production capacity of from 1,500 to 2,000 pounds of butter an hour. The Cherry-Burrell machine can be varied to turn out from 1,000 to 2,000 lb. an hour.

Buttermaking authorities figure that a production of 1,000 lb. an hour is equivalent to a million lb. of butter a year. Generally the small processing plants produce around 500,000 lb. of butter a year, while large plants run up to annual outputs of 5-million lb. or more.

• **Economy**—Neither Creamery Package nor Cherry-Burrell will estimate how much money the continuous process saves when compared with the present

The revolutionary

Westinghouse *Life-Line* Compressor-Motor Unit

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AIR CONDITIONING
AS DEPENDABLE AS
THE HOME REFRIGERATOR.



THE WORLD'S FINEST
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Today you take dependability for granted in a good electric refrigerator. It hasn't always been that way with air conditioning units. Westinghouse started to change that picture in 1935—with the introduction of the first hermetically-sealed compressor. Now, with years of leadership and experience behind it, Westinghouse offers the Life-Line Compressor-Motor unit—the most dependable air conditioning compressor ever built—as one reason Westinghouse air conditioning units are

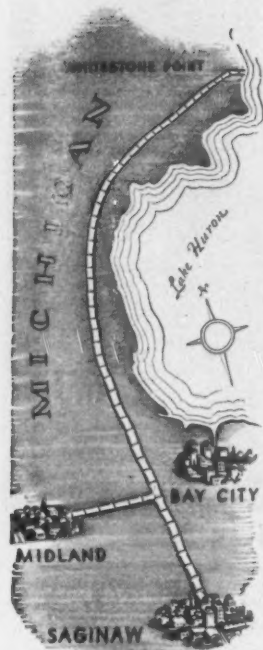
outstanding. The other reason is that only Westinghouse makes all the important components of an air conditioning unit. It costs no more to buy a Unitaire—it costs less to own one. Specify Westinghouse air conditioning — you get more for your money. Call your nearest Westinghouse air conditioning distributor or write to: Westinghouse Electric Corporation, Sturtevant Division, 33 Readville Avenue, Hyde Park, Boston 36, Massachusetts.

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buttermaking method. But there are many chances for manufacturing economies:

(1) Considerably less steam and refrigeration are needed to produce the same amount of butter;

(2) Less handling of cream and butter requires less labor;

(3) More compact plants are possible because the machines take less floor space;

(4) Moisture leakage—a serious problem—is eliminated in the final product, because the water is more finely dispersed.

(5) More sanitary plants, with easily cleaned machines, will cut maintenance costs;

(6) Much faster production will slash storage and inventory costs. Cars of butter can be loaded the same day that the cream arrives.

The Cherry-Burrell process, from the time the cream arrives to the delivery of wrapped butter, requires only 1½ hours, against some 48 hours for present processes. In the Creamery Package method, finished butter emerges only 10 minutes after the cream enters the separator.

• **Initial Cost**—Opinions differ on initial cost of the machinery. Cherry-Burrell claims that the continuous equipment for a medium-size creamery will cost little more than comparable batch equipment. A Creamery Package spokesman, on the other hand, declares that the new method "will represent substantially more of an investment than is now represented by the batch-type equipment."

Batch churns won't be outmoded, according to Creamery Package. The company cites its experience with ice cream freezers to make this point: Although the continuous ice cream freezer has sold heavily ever since its introduction, the sale of batch freezers has actually been climbing in recent years.

• **Fewer Creameries?**—The continuous buttermaking processes may bring important changes. The small country creamery of the future may become largely a concentrating plant. It would deliver a highly concentrated cream to central plants, which would finish it into butter on continuous machines. Dairy industry leaders think that fewer creameries will result. Butter plants too small to use the new system efficiently, they believe, will eventually join with other plants to capitalize on their high-speed equipment.

FAST VULCANIZING

Electronic vulcanization of rubber has stepped out of the experimental stage at B. F. Goodrich Co. The company announced last week that some extruded products—tubing, strip and channel stock, and rubber thread—are now

getting the quick electronic cure as a standard production process. Vulcanizing time in some cases has been cut from 1½ hr. to two min.

In the process, the rubber is subjected to electronic energy waves moving at speeds up to 186,000 mi. per sec. The waves create internal friction by exciting molecules in the rubber. A temperature of about 300F builds up instantly. In addition to saving time in curing, Goodrich engineers say, the process does away with a lot of product handling.

MORE ALUMINUM?

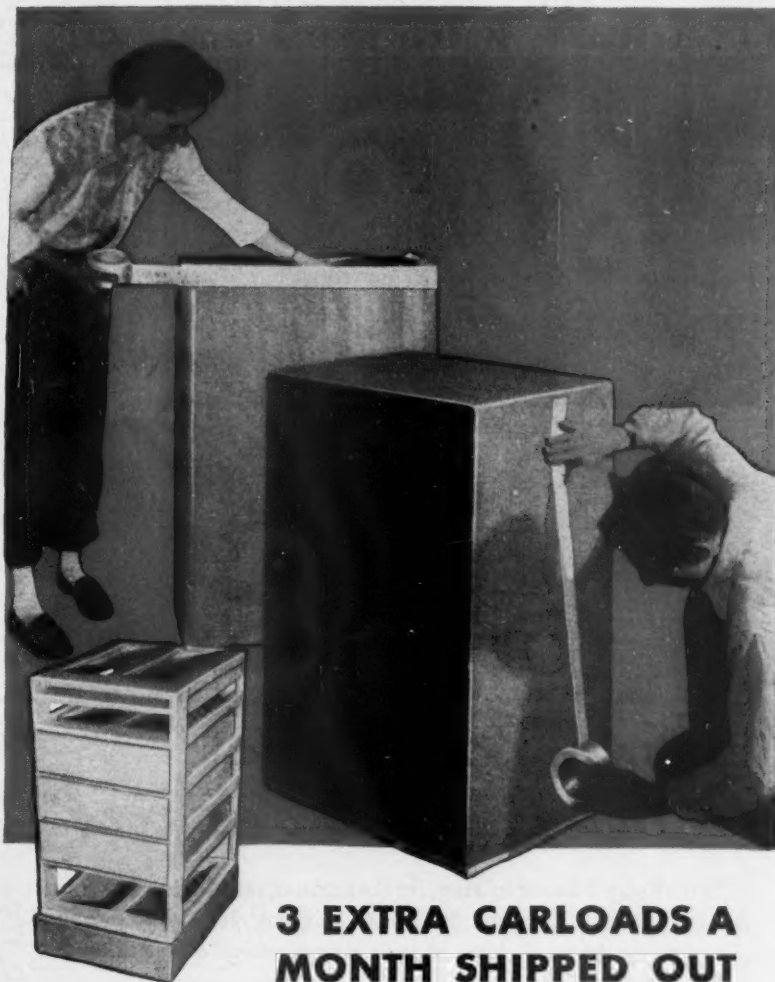
An obscure, low-grade ore found in Oregon—laterite—may prove a practical commercial source for aluminum.

Aluminum Co. of America, right now, has pilot plants experimenting with the ore. Laterite is a product of rock decay, contains a high percentage of iron oxide, some aluminum hydroxide, and silica. Its alumina content is even lower than the lowest grade of bauxite used during World War II. Alcoa's pitch: The marketable iron produced in the reduction might make aluminum production from the ore economically practicable.



HEADS CORROSION GROUP

Frank L. LaQue is the new president of the National Assn. of Corrosion Engineers (BW—Apr. 1947, p. 72). He was picked last week to succeed G. R. Olson at N.A.C.E.'s convention in St. Louis. LaQue heads the corrosion engineering section of the International Nickel Co., Inc. During the winter he promotes the use of nickel as a corrosion preventive. He summers in shorts and pith helmet at the company's sea-water "test-tube" at Kure Beach, N. C.



3 EXTRA CARLOADS A MONTH SHIPPED OUT

That's what happened when a manufacturer of kitchen cabinets scrapped old methods and adopted a streamlined packaging procedure built around the ease and speed of "SCOTCH" Tape application.

THESE ADVANTAGES PAID OFF:

1. The pressure-sensitive adhesive of "SCOTCH" Extra Strength Tape grabs and holds the instant it is applied. Requires no preliminary moistening or special equipment to activate the adhesive.
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3. "SCOTCH" Extra Strength Tape is strong. A tensile strength of 50 pounds per inch of width, together with high abrasion resistance, reinforce the package during shipment and handling.

Streamline your packaging; break the packaging bottleneck; insure thorough protection for your product by sealing and reinforcing with "SCOTCH" Extra Strength Tape. A "SCOTCH" TAPE field engineer will call at a word from you and give you the benefit of his wide experience. Why not drop us a line today?

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*"It's handy... to get a
Hot Meal where we work"*

That's Ruby F. Senor talking. As Foreman at the Mexico, Missouri plant of the A. P. Green Fire Brick Company, Mr. Senor has the interesting point of view of both management and worker on the question of in-plant feeding and its advantages.

He speaks for the 1600 Green employees who like the convenience of the company cafeteria... find that the appetizing and nutritious hot food gives a real lift to the job.

He speaks for the Green management when he says "Centralized feeding is a help because it keeps our employees on the premises and reduces tardiness at lunch time."

Both employees and employers are served well by their restaurant... and by Crotty Brothers Feeding Service, which operates it. W. G. Staley, Director of Industrial Relations, finds the two an effective combination in advancing his enlightened program of worker-management cooperation.

★ From a series of case studies of in-plant feeding made by Richardson Wood, Industrial Analyst. A copy of his report on management's opinions about employee feeding will be gladly sent free on request.

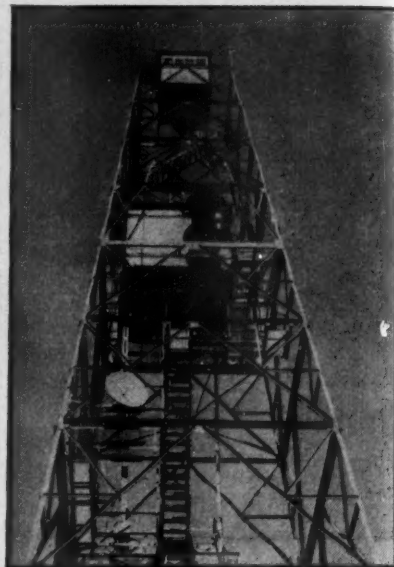
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TOWER WITH THREE JOBS

Western Union Telegraph Co. is planning an expansion of its beamed system of telegram transmission, called Telefax. An experimental line has been in use from New York to Philadelphia for almost a year. In the system, parabolic reflectors beam the radio signal from tower to tower. General Electric Co. has a television program hookup, using this principle, between New York and Schenectady (BW-Oct. 4 '47, p66).

Western Union's expansion plans are to build a triangle of towers from New York to Washington, to Pittsburgh, and back to New York. The tower above, near Baltimore, has a three-way job:

- (1) At the 100-ft. level, parabolic reflectors beam the telegraph messages.
- (2) The cabin at the top is used by the State Dept. of Forestry as part of its firewatch system.
- (3) The tower is being used for long-range television experimentation by Western Union.

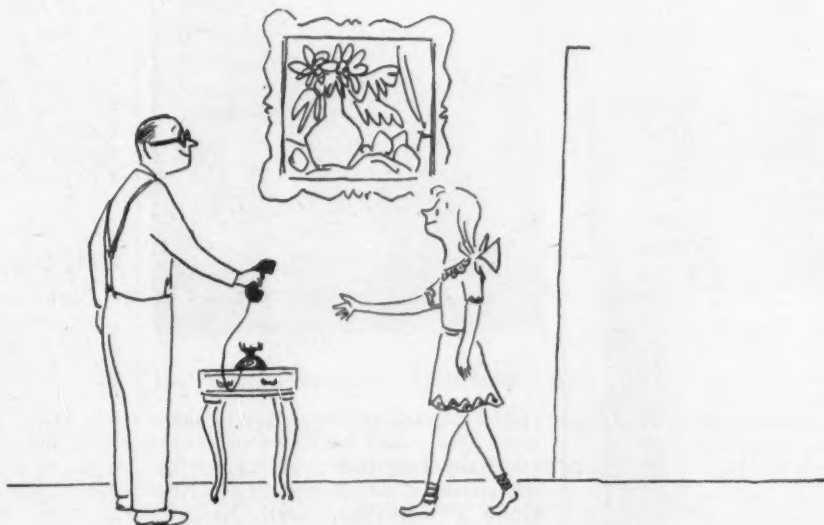
OPEN DOOR TO DUCO FINISH

E. I. du Pont de Nemours & Co. has opened the gates on the licensing of its Metalli-Chrome nitrocellulose lacquers (BW-May 18 '46, p50). It has already granted free licenses to 50 paint and lacquer makers for manufacture of the metallic finish.

The Duco Metalli-Chromes were first announced in 1946, hit the market on a commercial scale about a year later. The finishes—for auto bodies and metal products—combined toughness with a high degree of translucency and metallic glitter.

Present licenses cover use and sale of the lacquer and its manufacturing process. Du Pont will give the rights, free, to any paint or lacquer producer who asks for them.

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Nor the Power of the Magazine Women Believe In. *More women buy Ladies' Home Journal, because women actively prefer a magazine edited to their special interests.*

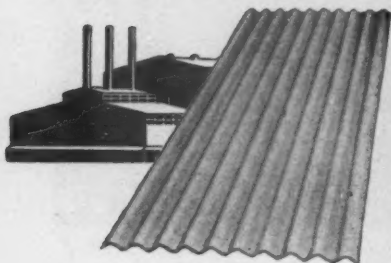
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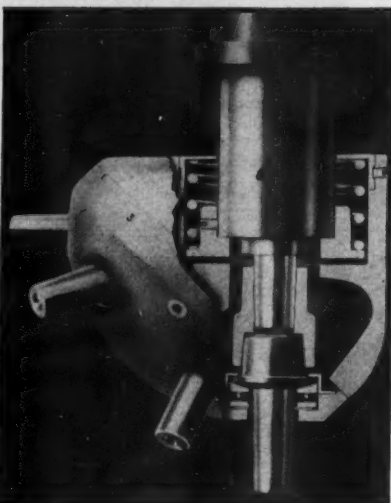
20 pages of factual information including illustrations and names of companies owning Deming Turbine Pumps.

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DEMING
THE COMPLETE LINE
PUMPS AND WATER SYSTEMS

NEW PRODUCTS



Drill Turret

The intrinsic problems of tool alignment have caused machine-tool designers to shy away from applying the turret (multitool) idea to drill presses. Now Howe & Fant, Inc., South Norwalk, Conn., says it has the answer: the Lign-o-matic.

This is a special turret unit available for attachment to conventional machines (top picture). The turret is built so that any one of its six spindles can be automatically centered and aligned by the drill-press spindle. Howe & Fant claims that the turret is as accurate as the drill press on which it is installed.

Automatic centering and alignment are obtained by using specially designed floating bearings (these can move laterally or at an angle) and a tapered driving unit (lower picture). As the driving unit on the drill engages the

mating taper on the turret unit, the tool is automatically aligned and locked in that position.

Lign-o-matic has no gears, teeth, or projections to clash or wear. Power is transmitted directly from the press to the tool through the same tapered surfaces that accomplish alignment. Tool indexing is done with a simple lift-and-twist. The company says the device is easy to attach to any standard machine. Availability: standard sizes, immediate; specials, two weeks.

Non-Burning Sponge Rubber

The field for sponge rubber uses looked wider last week. Commonwealth Engineering Co., Dayton, Ohio, announced that it had developed a nonflammable form of the material. Just what it used to make the product—called Spon—was not disclosed. But the company did say that the materials were in free supply.

The sponge can be made with a hose, or it can be cast in sheets or in open molds. In the case of the hosing method, sponging takes place at the nozzle. In sheet form it can be turned out at high speeds in much the same way that paper is made.

The product can be vulcanized to upholstery or to fibreboard (for lining cartons). It is described as odorless, tough, and highly resilient. Both hard and soft sponges can be made in colors.

• Availability: on licensing arrangement.

Little Digger

Foundation footings for homes and small commercial buildings can be dug at 160 ft. per hr. with a midjet trenching machine. Its developer is Everett Mfg. Co., 311 E. Broadway St., Phoenix, Ariz. The machine gets its power from the power takeoff of a tractor, truck, or jeep. Digging buckets scoop out a trench 30 in. deep, 12 in. to 18 in. wide. A screw conveyor carries the dirt off to the side.

• Availability: in the far West, 90 days; rest of the country, the end of this year.

Air Press

Most mechanical presses work with a constant impact; stroke is changed to fit the job. Bryant Products Co., Jackson, Mich., has designed an air impact hammer that does just the opposite. It holds stroke constant, varies the impact pressure. That way it gets a striking force varying from 1 oz. to 12,000 psi.

Air under high compression is equalized on top and bottom sides of the

piston. To get power for the hammer's impact, the air below the piston is exhausted suddenly. This drives the hammer downward. Once set, impact pressure remains constant at any point along the stroke.

Work speed—with hand or foot control—is about 60 strokes per min. Automatic controls also are available. Bryant says the hammer can be used on a variety of production jobs, ranging from light stamping and forging, to trimming, molding, and riveting.

• Availability: immediate.

Geared Hoist

A new design for the lever-operated hoist has been developed by Shaw-Box Crane & Hoist Division, Manning, Maxwell & Moore, Inc., Muskegon, Mich. The tool lifts with a lever that acts on a gear train instead of on the usual ratchet wheel. This increases lifting capacity, the company says. It points out that the Tugit hoist needs a pull of only 40 lb. on the lever to lift a 1-ton load.

The brake for the unit is placed on the gear between the operating lever and the lifting wheel. The hoist is made in 1-ton and 2-ton capacities.

• Availability: middle of May.

Tire Changer

Getting truck tires off the rims for repairs usually takes a barrage of hammering and a slow session of wedging and prying. Edwin I. Butler Co., Charlotte, N. C., thinks its tire changing machine will make the job a lot easier. Since the device separates the rim from the tire by hydraulic action, manual labor is nearly eliminated. Work time is cut to a matter of minutes.

The machine weighs 550 lb., measures 72½ in. x 30 in. x 41 in. It handles all sizes of heavy rims and wheels from 18 in. to 24 in. in diameter.

To make the changes, the wheel and rim are rolled on the machine. A pedal centers the tire. Then the operator works a hydraulic hand pump to push out the rim. A release valve lets the rim fall free.

Anderson Industries, P. O. Box 806, Charlotte, N. C., is the distributor of the machine.

• Availability: immediate.

Marine Drive

The eddy current coupling idea is being applied to an increasingly wide range of automotive, industrial, and home uses (BW—Feb. 28 '48, p. 55). Now the Cooper-Bessemer Corp., of Mt. Vernon, Ohio, has put the principle to work in marine service with its Gehres Drive.

There is no mechanical contact be-

MEMORANDUM TO MANUFACTURERS



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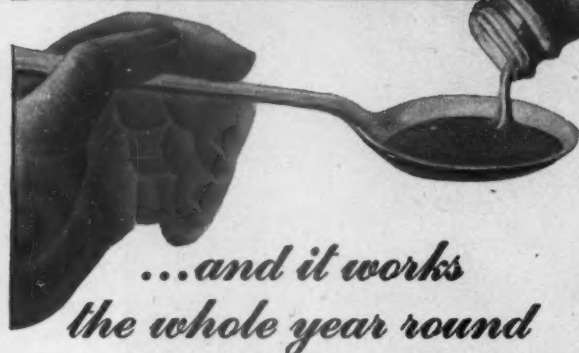
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Propellairs are more than "fans." Their airfoil blades are scientific achievements in *efficient* air movement. Air flow is uniform over full fan area, because the whole blade works — *not* just the tip. And both sides of the blades create air movement, the backs *even more* than the fronts. Nearly twenty years of doing one thing well—that's Propellair.

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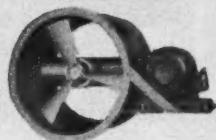
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vice. Write for all the facts.*



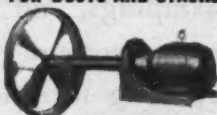
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**STAND-MOUNTED,
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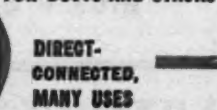
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FOR DUCTS AND STACKS**



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CONNECTED,
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PROPELLAIR
DIVISION OF ROBBINS & MYERS, INC.
SPRINGFIELD, OHIO

tween engine and driveshaft; eddy currents transmit the driving force. This, says Cooper-Bessemer, gives its drive two valuable points:

(1) It is possible to throw the ship from full speed ahead to full speed astern without damage to engine, coupling, or gears.

(2) The drive is highly flexible, since output shaft rpm. can be determined by varying engine speed or by reducing current flow in the coupling.

The drive consists of two couplings connected to compact gearing. An electrical generator of 3.5-kw. capacity is required to produce necessary currents. One lever in the pilot house will control speed and direction of the propeller.

• Availability: six to seven months.



Plug-In Thermostat

Changing your heating control from a hand-set thermostat to an automatic clock model usually means putting in a transformer, doing some rewiring. Most homeowners have to count on dealers' staffs to do the job. Now Minneapolis-Honeywell Regulator Co., 2954 Fourth Ave., S., Minneapolis 8, Minn., is making a modified model of its Chronotherm (BW-Aug. 9'47, p49); the householder can install it in five minutes, says the company.

The instrument uses a 110-v. clock motor instead of the regular 24-v. motor. Thus it will work directly from an electrical wall plug—it doesn't need a transformer. A universal wall plate automatically makes connections with existing thermostat wires. Honeywell says the plate fits almost all types of mountings.

• Availability: June.

Motored Minnow Bucket

A motor-driven minnow bucket is the Eureka Mfg. Co.'s answer to the problem of keeping bait alive and frisky on long fishing trips. The bucket has a

'JEEP' 2 AND 4 WHEEL DRIVE TRUCKS

Cut Hauling Costs



**Powered by the War-Proved
Willys-Overland 'Jeep' Engine**

TWO GREAT LINES—2-wheel-drive "Jeep" Trucks (4700-5300 lbs. GVW) are built for long service and low operating costs for medium-duty hauling. 4-wheel-drive "Jeep" Trucks (5300 lbs. GVW) meet a real need for a low-weight vehicle with all-wheel traction to get through mud, climb steep grades and operate off the road.

DESIGNED TO CUT COSTS—Every feature of these postwar trucks is designed to lower operating and maintenance costs. They are powered by the war-proved Willys-Overland "Jeep" Engine, world-famous for gas and oil economy, easy repair and long service. They are ruggedly built of quality materials to stand up. No body frills to add non-essential weight and decrease payload.

FUNCTIONAL BODIES—"Jeep" Truck body designs not only cut weight but also make maintenance and servicing easier. Note the hard-to-damage

fenders, which make it simpler to change tires or put on chains. Wide hood opens from fender to fender, with engine and battery easy to reach. Lights are in protected position.

See the other features of 2- and 4-wheel-drive "Jeep" Trucks at Willys-Overland dealers, including the roomy cab, large windshield and windows, short turning radius and popular body styles—pick-up, canopy, van and platform-stake.

'Jeep' Trucks

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That's why Orangeburg *non-perforated* lasts a lifetime for House-to-Sewer, Septic Tank, Conductor or Irrigation Lines. For Septic Tank Beds, Foundation Drains, Land Drainage, use the *perforated* type.

Long lengths light in weight make Orangeburg easy and economical to install. And the *first* cost is the *last* cost for this *permanent* pipe. Orangeburg saves you money. Be sure to ask for it by name. Orangeburg Manufacturing Co., Inc., Orangeburg, N. Y.

*Reg. U. S. Pat. Off.

ORANGEBURG
THE ROOT-PROOF PIPE



fractional-hp. 6-v. motor that works from an automobile battery.

To mix oxygen with the water in the bucket (you have to have oxygen to keep the fish alive), the unit uses a two-



blade shaft. The upper blade draws air through the shaft hole and the lower blade lifts up the water and breaks it into small particles, causing a continuous aeration.

Eureka, whose address is Box 13, Ada, Okla., says it has kept 20 dozen minnows alive in the bucket for a week—without changing water.

• Availability: immediate.

P. S.

Microammeters that will measure direct currents down to one-billionth of an ampere have been announced by Radio Corp. of America, Victor Division, Camden, N. J.

A motor control-center regulates any number of motors up to 200 hp. at 440 v. from one central spot. The maker: General Electric Co., Schenectady 5, N. Y.

A nylon-reinforced V-belt made by U. S. Rubber Co., Rockefeller Center, New York, N. Y., is said to have twice the strength of conventional V-belts.

A parking meter that is self-winding and self-starting is a development of Duncan Meter Corp., 835 N. Wood St., Chicago 22, Ill.

National Foam System, Inc., 1408 Packard Bldg., Philadelphia, Pa., has a new fire-fighting trailer for a truck or jeep. The unit makes 2,500 gal. of fire-smothering foam.

A "refrigerator stretcher," called Space Saver, is a small chromium-plated steel shelf. It hangs under existing shelves, provides lie-down space for bottles, butter, eggs. Escoc Industries, 14368 Stahelin Ave., Detroit 23, Mich., makes it.



What's your definition of a traitor?

Ordinarily, you don't speak of treason except in time of actual war. A man has to betray his country to a declared enemy to earn the stigma of traitor, and if caught, his life is the price.

The whole idea, of course, is to prevent harm to the nation at a time when it is most vulnerable. The sadly outworn part of the idea is to assume that America is most vulnerable only when there's shooting going on. This country can be mortally hurt right *now*. We're a closely-knit producer nation, and we have to produce—or else! A nation-

wide work stoppage in any one of our basic industries, such as coal, steel or transportation, causing shutdowns or cutbacks in every other industry, can damage America more than if some traitor sold out every plane, gun or atomic secret we possess.

Sooner or later, all America is going to ask *why*—if men negotiate with good will, and with the resolve not to betray their trust—*there ever need be such threats to our national security*. What questions can a strike settle today that could not be settled better for everyone *without* stopping work?



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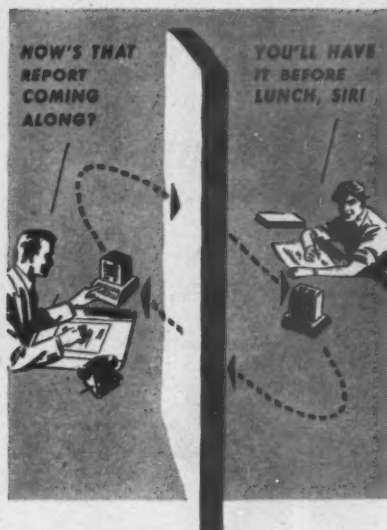
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AUTOMOTIVE

Olds Steps Up Compression

Lansing plant of G.M. subsidiary will make engines with compression ratio of nearly 8-to-1 for 1949 models. Further boosts planned, depending on availability of better fuels.

General Motors is making a start toward the high-compression automobile engine of the future. Last week the company named Marvin L. Katke to be superintendent of a "Kettering engine plant" for the Olds Motor Division at Lansing, Mich. Katke has been with Olds for 20 years.

• **Higher Ratio**—The new engine, which will be used first on 1949 model Oldsmobiles, will have a compression ratio of nearly 8-to-1. (That is, when the piston moves from the bottom to the top of its stroke, the gasoline-and-air mixture in the cylinder is squeezed down to one-eighth its original volume.) Although this is significantly higher than present engines (between 6-to-1 and 7-to-1), it's a long way from the 124-to-1 experimental engine unveiled by Charles F. Kettering last summer (BW—Jun. 14 '47, p. 52).

• **No Chance?**—Today some industry technicians believe that the full 124-to-1 ratio may never be standard equipment on passenger cars. But they do look for

a gradual rise, beginning with the 1949 Olds.

To eliminate the need for expensive future retooling, the new Olds engine has been designed for use with compression ratios higher than next year's. The block of the engine—the major component—will be usable without change, technicians believe, for as many as eight to ten years as ratios are gradually stepped up. The cylinder head, however, will have to be changed to permit gradually increased ratios from year to year.

• **Better Gas Needed**—The big limiting factor in ratios will be the availability—or lack of it—of higher quality gasoline. Next year's Olds powerplant is designed for fuel with a research octane rating around 88. That's not much better than the gasoline available today from the high-test pumps at your corner filling station. Higher-quality fuel, however, is some distance away.

The bigger petroleum refiners could produce the better fuel, but the smaller



Lincoln Shows Its "Cosmopolitan"

First of the 1949 family of the Ford Motor Co. to be announced is the new Lincoln series. They are available in two differently priced ranges, with eight body styles. The Lincoln Cosmopolitan (above) has a 125-in. wheelbase; the plain Lincoln is 4 in. shorter.

Each has a new 152-hp., V-8 engine, largest yet made by Ford. New style features long, sweeping lines and "pontoon" sides, better visibility. Front coil springs improve riding. The Cosmopolitan series includes over-drive as standard equipment.



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Designed for the big brute jobs and widely used in the marine, oil and steel industries, **SKF** Spherical Roller Thrust Bearings are built like a watch to do the work of a giant.

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The right bearing in the right place

SKF INDUSTRIES, INC., PHILADELPHIA

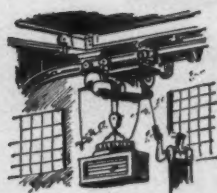
What Strange Power



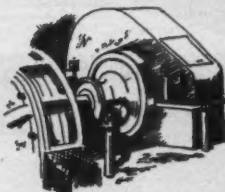
... and what
can it do for you?

Mysterious though it may be, magnetism is an easily controllable and hence easily useful power. Touch a button... and it exists. Touch another button... and it vanishes. Use magnetism and it will grab up tons of iron and steel parts and deposit them where you want. It will clutch and declutch two or more moving members of a machine so gently you hardly know it happened. It will stop and hold a tremendous revolving load... or it will pick out pieces of iron and steel that have no business being in your materials-in-process such as coal, rock, grain, food, or on your airplane runway, your parking lot, your right-of-way.

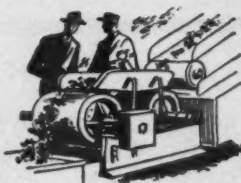
Because magnetism is so useful and so controllable, many leading machine designers have turned to Cutler-Hammer, leading manufacturers of lifting magnets, magnetic brakes, magnetic clutches, and magnetic separators to solve problems that yield to no other solutions. Cutler-Hammer engineering recommendations are sound because they are based on worldwide experience and proven dependability. CUTLER-HAMMER, Inc., 1275 St. Paul Ave., Milwaukee 1, Wisconsin.



No. 1 way—Lifting, carrying, quickly handling loads of iron and steel, bagged, boxed or loose with Cutler-Hammer Lifting Magnets. Truck mounted magnets may be used for policing factory aisles, parking lots.



No. 2 way—Starting, stopping, controlling machines automatically through magnetically operated Cutler-Hammer clutches and brakes.



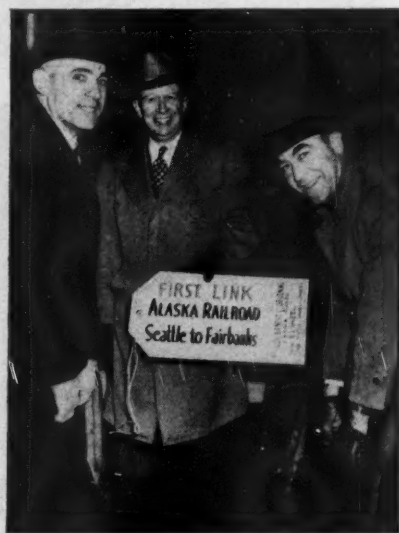
No. 3 way—Removing stray pieces of iron from materials in process, protecting valuable machinery, salvaging scrap from refuse by the use of Cutler-Hammer Magnetic Separators.

ones couldn't afford to. The big oil refiners have told auto people they do not want to be put in the position of seeming to stifle their less fortunate competition. Further—and all refiners agree on this—higher quality gasoline will require third pumps at every corner station, something no supplier wants to demand of his retail outlets. The trend, therefore, will be toward very gradual improvement on both engines and fuels.

• **Ford Has Doubts**—The Olds decision to go ahead now in the high-compression field contrasts with the announcement of the new 1949 Lincolns (page 80). Although the new Lincolns, first of the 1949 Ford family, are powered with a brand-new engine, that powerplant has a compression ratio of only 7-to-1.

Ford Motor Co. is known to be doing extensive testing on higher-octane gasolines—even experimental superfuels. But it is not convinced that a new era lies just around the corner; that is fairly evident from the specifications of its new Lincoln engine.

Lincoln's prime rival, G.M.'s Cadillac, is expected to be the next car to follow the Olds lead. Its higher-compression engine may appear in 1949, perhaps not until 1950.



PROMOTING A LINK

This half ton of steel rail tagged with a two-foot greeting card was on its way last week from Seattle to Gov. Ernest Gruening of Alaska. It was touted as the "first link" in a long-thought-about railroad from Vancouver, B. C., to Fairbanks, Alaska.

The rail bearers, from Seattle's Chamber of Commerce, are (left to right): Mike Dederer, H. P. Lawrence, Cecil McKinstry.

The U. S. Army made surveys of the route in 1942-43. Seattle backers of the project hope that it might become a military measure. It would cost \$725-million.



1 Driveaway customers—man, wife, and child—arrive by plane at the Willow Run (Mich.) airport. Kaiser-Frazer has sent a courtesy car, which whisks them away to . . .

Drive It Away—In Style

Kaiser-Frazer coddles driveaway customers with its new Willow Cottage. Car buyers can enjoy luxury while they wait.

Young though it is, Kaiser-Frazer Corp. is an old hand at thinking up slick variations in the field of promotion. Among other things, K-F. added a new razzle-dazzle to car debuts (BW—Jan. 26'46, p19), dressed the show room up like a merry-go-round (BW—Jan. 31'48, p36). Now it's added a satin finish to the Detroit "driveaway" business.

The driveaway idea itself is nothing new. Customers frequently go to auto plants to pick up cars, thus saving freight charges. (Of course, they make all arrangements through hometown dealers, who get their regular commission.) The cost of shipping a car from

Detroit to Atlanta is about \$90; a car buyer can fly to Detroit for \$41, use the difference to drive back home—and get a vacation to boot.

But K-F. has added a new touch. Normally the driveaway customer just hangs around the plant and waits for his car. K-F. has put some effort into making his stay a memorable one. Near its Willow Run plant it has built luxurious, air-conditioned Willow Cottage. There driveaway customers can wait in luxury, attended by maids, a hostess, other functionaries. In some cases, K-F. dealers even pay the customer's fare to Willow Run.



2 Willow Cottage, where a representative from the K-F. distribution department takes care of all the paper work in swank office. After that . . . (TURN TO PAGE 86)

Production down?



Music "at work"
will give it a boost!

Is there a bad dip in the average daily production curve for key production lines in your plant?

Scientific studies prove that restlessness and fatigue from strain, tension and repetitive work are the factors that push production curves into nose dives. The result is higher costs, higher prices.

● Music "at work" acts like magic on lagging production lines—gives industry another tool with which to increase productive efficiency. Music played over an RCA Sound System gives workers a lift while they work. It creates a relaxed, cheerful and pleasant atmosphere—makes working conditions in your factory or office more enjoyable. Some industrial plants have records of increased productivity as much as 6 to 14 per cent after installing RCA sound and music.

● What kind of sound system is best for you? There is no ready-made system that perfectly suits the noise level, type of buildings and needs of all factory and office layouts. RCA sound engineers will be glad to make a survey of your plant and map out a sound system program to fit the individual requirements of your organization. No obligation, of course.

For complete details contact your nearest RCA Sound System Distributor or write: Sound Products Section, Dept. 16-D, RCA, Camden, New Jersey.



SOUND SYSTEMS
**RADIO CORPORATION
OF AMERICA**
CAMDEN, N.J.

In Canada: RCA VICTOR Company, Limited, Montreal

Do Your ...

**SAWING
SANDING
SHAPING · GRINDING
WIRE BRUSHING**

WITH A *MallSaw*
REG. U. S. PAT. OFF.

**CUTS EVERYTHING
From Wood To Steel!**




This one tool—and its companion table stand—in your tool shop, garage or hobby room equips you with a hand saw ... table saw ... shaper ... face or drum sander ... wire brush ... or grinder. The new table stand—complete with miter guide and rip fence—and the various saw blades, abrasive discs and other accessories available convert the Model 60 MallSaw from one use to the other quickly and easily—giving many tool efficiency at minimum cost.

Ask your local Dealer for the Model 60 MallSaw.

MALL TOOL COMPANY 7768 South Chicago Avenue
Chicago 19, Illinois



Master Showman... Master Salesman



THE VICTOR LITE-WEIGHT

16mm SOUND MOTION PICTURE PROJECTOR

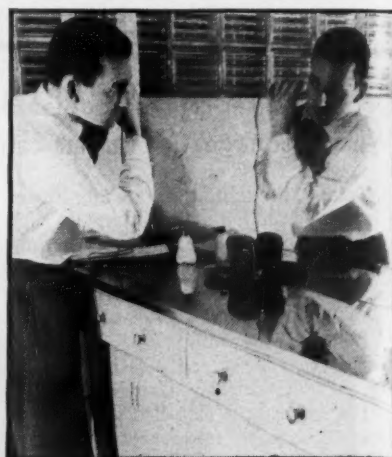
Around the conference table, the Victor Lite-Weight with your own sales films gives the top demonstration of your product. Portable, compact and easily operated, the Lite-Weight is your top "traveling salesman" and "sales closer." With countless 16mm films, the Lite-Weight also trains employees in safety principles and company techniques. For relaxation during rest periods, there are many entertainment films available. Ask your nearest Victor Headquarters for a Lite-Weight demonstration or write for Victor's new industrial folder.

Victor Animatograph Corporation

A DIVISION OF CURTISS-WRIGHT CORPORATION
Dept. 8W-8, Home Office and Factory: Davenport, Iowa • New York • Chicago
Distributors Throughout the World
MAKERS OF MOVIE EQUIPMENT SINCE 1910



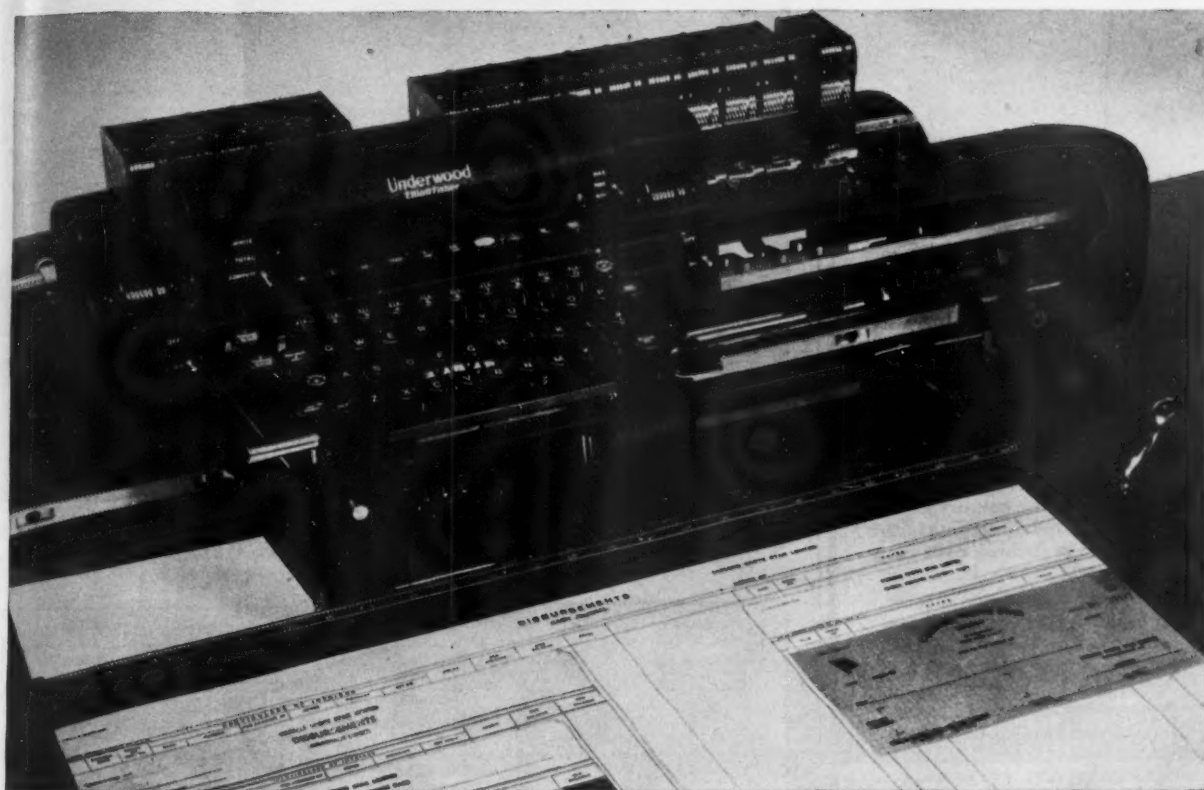
3 The wife dainties up a bit in Willow Cottage's shower baths while ...



4 The husband gives his beard an electric once-over. By the time they finish ...



5 A maid has pressed the travel wrinkles out of the family's clothes. Fresh and tidy ... (TURN TO PAGE 88)



ACCOUNTING TO THE

"Queen's Taste"

**Underwood Elliott Fisher Electric
Keyboard Accounting Machines keep
Cunard White Star Line
Accounts Receivable and Payable
right up to the minute**



The Queen Elizabeth moves
majestically into port.

Impressive are the many speed records of the great Cunard White Star fleet.

Impressive, too, is Elliott Fisher's speed in posting Cunard's Accounts Receivable records. Only two Elliott Fisher Electric Keyboard Accounting Machines are required to post and balance Cunard White Star's large daily volume of transactions. The entries are posted simultaneously to all related records: the Analysis Statement, the Steamer Account Ledger and the Journal . . . with mechanical proof of the accuracy of all postings.

Another machine posts 7 different Accounts Payable records in one writing — an operation which is fast and simple. With Elliott Fisher's exclusive

Flat Writing Surface all the related forms are speedily inserted and held in perfect registration for making entries in the proper positions on each form.

Find out how Elliott Fisher's flexibility and high-speed can save dollars and days for you. Elliott Fisher is completely electrified and has only 10

numeral keys . . . its standard keyboard is familiar to all typists.

Your nearest Underwood representative will be glad to show you how Elliott Fisher Accounting Machines can simplify and speed-up your record-keeping jobs. There's no obligation. Call him today.

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Underwood Corporation

Accounting Machines . . . Typewriters . . . Adding Machines
Carbon Paper . . . Ribbons and other Supplies

One Park Avenue

New York 16, N. Y.

Underwood Limited, 135 Victoria St., Toronto 1, Canada

Sales and Service Everywhere



DON'T LET THIS HAPPEN To Your Shipments!

● A few INTERNATIONAL STAPLES could have prevented this! (8 staples to be exact.) THE INTERNATIONAL RETRACTABLE ANVIL STAPLE MACHINE closes filled cartons from the outside, tops and bottoms simultaneously, if desired! Cartons stapled the INTERNATIONAL way actually exceed the requirements of the Consolidated Freight Classification.

What does this mean to you? A neat, durable package closure and savings in packing costs ranging up to 50%.

Write for catalog and reprint entitled, "New Layout Returns First Cost in Three Months."

In business since 1938, INTERNATIONAL distributors are everywhere!

INTERNATIONAL STAPLE AND MACHINE COMPANY

HAVERTOWN 15, PENNA.

Visit our booths: 513, 514, 515 AMA Show.



In spring, winter and fall, working comfort is automatically maintained with Reznor gas fired heaters. Reznor thermostatic control is your non-salary fireman . . . you can forget expensive furnace firing with its family of operating and maintenance bothers. Reznor heaters circulate live, warm air in abundance.



REZNOR
Gas fired unit heaters
A SIZE FOR EVERY NEED
REZNOR CO.
MERCER 3, PENNA.
Gas Heaters Since 1888

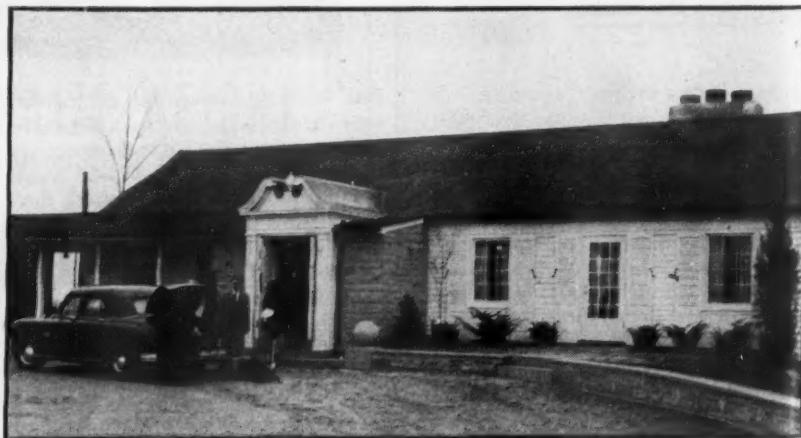
NO BOILERS NO STEAM LINES
NO FUEL STORAGE NO FIRE TENDING



6 They go to lunch in the plant dining room—at company expense. After that they can have tea, write letters, relax quietly in Willow Cottage. When their car is ready . . .

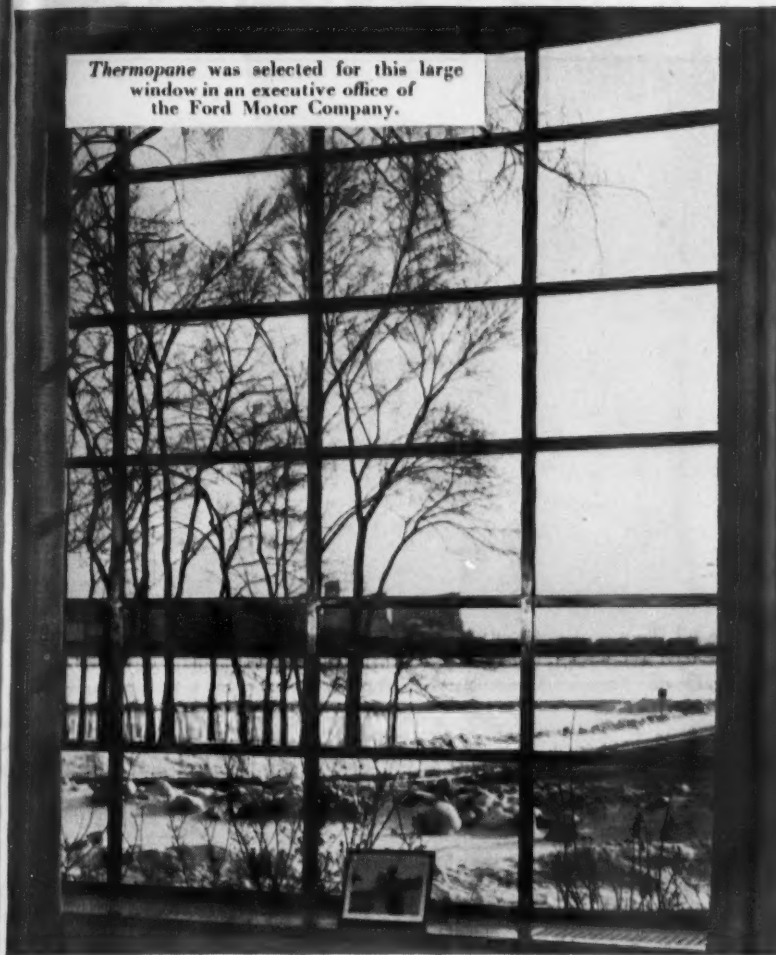


7 The distribution department moves back into the picture. Another representative goes over a road map, plots the shortest and best way home. The stay ends when . . .



8 The new owners of a K-F. car step out of the front door and find their hours-old model ready to drive home. The hostess has seen to it that the baggage is on hand

Thermopane was selected for this large window in an executive office of the Ford Motor Company.



One
investment
pays MANY
dividends!



Thermopane window in this private office of the Crawford Furniture Manufacturing Corp., Jamestown, N. Y., blanks out noise of the mill across the narrow court.

There's no speculation in a *Thermopane** installation. You know beforehand that *Thermopane*—the windowpane that makes single glazing obsolete—pays many and lasting dollars-and-cents advantages for every investment.

...YEAR-ROUND COMFORT...

...REDUCES FUEL BILLS...

...AIDS AIR CONDITIONING...

...MINIMIZES CONDENSATION...

...SUBDUES NOISE...

...READILY AVAILABLE...

Two or more panes of glass separated by dry air and factory-fabricated into a unit by L-O-F's *Bondermetic* (metal-to-glass) Seal provide year-round window insulation.

Thermopane's insulating air space prevents excessive heat loss through glass . . . adds up to year-after-year fuel savings.

Thermopane keeps summer heat on the outside . . . reduces the load on air-conditioning equipment . . . permits more accurate and economic control of proper humidities.

Frost and moisture on ordinary glass rot sills, stain walls, soil drapes.

Effective in both windows and interior partitions, *Thermopane* subdues annoying and distracting noise.

L-O-F Glass Distributors stock *Thermopane* in Standard Sizes and can assure prompt delivery of units of special dimensions. Libbey-Owens-Ford Glass Company, 1148 Nicholas Building, Toledo 3, Ohio.

*®

ONLY LIBBEY-OWENS-FORD

MAKES *Thermopane*



LIBBEY-OWENS-FORD

a Great Name in **GLASS**

MYSTIK

METHODS

Break Bottlenecks

Attach Loose Parts for Shipment

Four screws go with this grill. They used to be put in a bag, tied to the grill with string... a slow process. Now they're attached with Mystik Self-Stik CLOTH TAPE... zip!... in one fast, cost-cutting operation. Want to save time, cut costs in your plant? Get the story of many Mystik products and methods. Write for information without obligation.

MYSTIK Tape for home use—
at stores everywhere

MYSTIK ADHESIVE PRODUCTS

2646 N. Kildore, Chicago, 19
Offices in Principal Cities

ANY LENGTH • ANY HEIGHT • ANY WIDTH



LOW COST

INDUSTRIAL

BUILDINGS ALL TYPES

Fabricated
and Completely

INSTALLED

\$1.50--\$2.50 Per Sq. Ft.*

*Depending on
window and
door requirements

HITCH YOUR BUILDING PROGRAM TO

All-purpose Starbilt



STEEL BUILDINGS

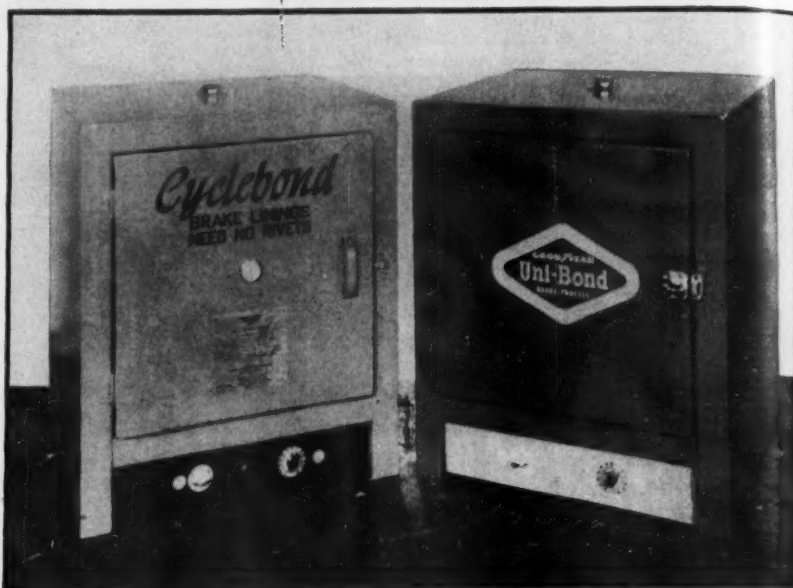
STAR
MANUFACTURING CO.

OKLA. CITY and 205 W. 57th N.Y.C.

West STAR STEEL BLDG. CO. 114 E. UNION
PASADENA, CALIF.

Write TODAY for more detailed information and cost estimates.

READERS REPORT:



TRENT EQUIPMENT for lining brakes without rivets

Brakelining Ovens

Sirs:

Your article entitled "New Brake-lining" [BW—Mar.13'48,p61] states that the Chrysler Corp. and the Goodyear Tire & Rubber Co. developed jointly this [Cycleweld] process during the war. You also state that the machines for use with this were developed by the Spanich Welding Co. in Plymouth, Mich.

Strange as it may seem, we build all of the ovens at the present time for both Goodyear and for Chrysler, for bonding the brake lining to the brake shoes, and all the Goodyear service stations. Our photograph [above], showing both these ovens, illustrates the types that are being used. . . .

E. F. EWING

TRENT, INC.,
PHILADELPHIA, PA.

• We did not mean to imply that the brakelining machine of the Spanich Co. was the only type of equipment in use. We were simply reporting a recent—and promising—development in the field.

War on Rats

Sirs:

We were interested to see your story "War on Rats" [BW—Mar.12'48,p20].

The third paragraph reads: "Cooperating is the National Pest Control Council, the trade association of the manufacturers of insecticides, fungicides, rodenticides, and other economic poisons."

We do not know of such an association and would like to make its acquaintance. We suspect, too, that the reference was meant for us [Agricultural Insecticide & Fungicide Assn.], in which case it would have been a correct statement.

Our trade association comprises basic manufacturers of pesticides used in agriculture. There is a National Association of Insecticide & Disinfectant Manufacturers, somewhat parallel to ours but mainly in the household rather than farm field. There also is a National Pest Control Assn., Inc., representing commercial or custom operators engaged in the application of pesticides for hire.

There also is a National Grain Conservation Committee, called together by Secretary of Agriculture Anderson. Its membership represents a number of trade associations, including ours.

DON STETSON

EDITOR,
AGRICULTURAL INSECTICIDE & FUNGICIDE ASSN.,
NEW YORK, N. Y.

Sirs:

By a flick of the wrist, so to speak, you disposed of a growing profession, namely that of the pest control operator, formerly just exterminators and before that rat catchers.

How this industry has advanced can be judged by the recent recognition given one of the members of the National Pest Control ASSN., Charles Pomerantz, for his discovery of the source of rickettsialpox. . . . We in the pest control industry are raising our

standards through training; colleges and universities across the country are establishing four-year courses with a solid background of related subjects as a foundation for graduates. . . .

Presently, through various state organizations and the National Pest Control Assn. and its hard-working secretary, William O. Buettner, every effort is being made to cooperate in the national rat control campaign. . . .

PAUL A. BRECK

ACTION PEST CONTROL SERVICE,
OAKLAND, CALIF.

• Sorry. We erred in our description of the National Pest Control Council. The National Pest Control Assn. is one group and the Agricultural Insecticide & Fungicide Assn., another.

Sirs:

. . . Your "War on Rats" article . . . will do much to stimulate interest in a problem which has been with us for a long time. . . .

We regret, however, to find that you neglected to mention a phase of rodent control which is currently being recommended by the Fish & Wildlife Service—fumigation with calcium cyanide. This material, known commercially as Cyanogas, has been marketed by this company for over 20 years and used the world over with remarkable success and results. . . .

A booklet on the "Worldwide Approval of Calcium Cyanide for Rodent Control" explains in detail how this material is used and the results which can be obtained with it. The material has the unique advantage of killing rats immediately it is used. No preliminary preparation is necessary, nor is cleanup work required. . . .

F. H. CAPPY

AMERICAN CYANAMID CO.,
NEW YORK, N. Y.

Sirs:

Although our city [High Point, N. C.] is well over 10,000 population, we have not yet received any information from the heads of the campaign mentioned in your "War on Rats" article.

Our City Council, of which I am a member, is at the moment studying this same problem. . . .

JOHN W. CLINARD, JR.

CLINARD MILLING CO., INC.,
HIGH POINT, N. C.

• For such information, write or wire Dorr Green, Chief of the Division of Predatory and Wildlife Control, Dept. of Interior, Washington, D. C.

Rebuttal

Sirs:

As Margaret Kerr of Northeast Airlines says in her letter to you [BW—

16mm. sound motion pictures—

help your business in 3 basic ways

AMPRO CENTURY 5
an economical ONE CASE
projector embodying
full Ampro quality



1 employee training 2 sales demonstration 3 consumer education



Tests prove people understand quicker, understand more and remember longer when they see and hear it on the screen. That's why alert business men use 16mm. sound films to develop skills, encourage company loyalty and demonstrate products and processes dramatically. And that's why, today, thousands of Ampro sound projectors are delivering consistently excellent performances for leading industrial concerns all over the world.

The Ampro "Century 5" sound projector has been especially designed for commercial use—for training or demonstrating to groups of 100 or less. It is a compact, one-case unit. It is an exceptionally quiet-running projector. Ampro quality is maintained in every detail, but all features not needed for its special purpose have been eliminated. That means real economy—and a price within the range of every budget. Before deciding on a 16mm. sound projector—be sure to see a demonstration of the Ampro "Century 5."

THE AMPRO CORPORATION

Chicago 18, Ill.

A General Precision Equipment Corporation Subsidiary

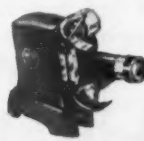
Trade Mark Reg.
U. S. Pat. Off.

Send for FREE Circular

On Ampro "Century 5" 16 mm. Sound Projector giving full specifications and prices. If you are interested in sound motion pictures send 10¢ for 16-page booklet, "The Amazing Story of Sound Motion Pictures." It dramatically illustrates the various steps in the recording and reproducing of sound on film.



THE AMPRO "IMPERIAL"
16mm. Silent Projector. A rugged dependable machine with an enviable record of performance in thousands of homes, churches, clubs and schools all over the world.



AMPROSLIDE PROJECTOR MODEL "30-D"
for filmstrip and 3" x 2" slides. Offers extra brilliant illumination—split-second interchangeability.

AMPRO CORPORATION

2835 N. Western Ave., Chicago 18, Ill.

Please send me free circular giving full details about the Ampro "Century 5" 16mm. Sound Projector.

I enclose 10¢ ☐ for a copy of the illustrated booklet, "The Amazing Story of Sound Motion Pictures."

I am also interested in:

☐ Ampro "Imperial" 16mm. Silent Projector
☐ Amproslide Projector Model "30-D"

Name

Address

City State

Used by America's Leading Industries..

INTERLAKE CHEMICALS

COAL TAR CHEMICALS

BENZOL • TOLUOL • XYLOL

AMMONIUM SULPHATE

PHENOLIC RESINS

PHENOLIC PLASTICS



For Example: Millions of railroad ties are preserved with Interlake Creosote Oil.

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CHEMICAL**
Corporation
FOUNDED 1904

INTERLAKE CHEMICAL CORPORATION

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Manufacturing Plants: Waltham, Mass. • Erie, Penn. • Forest Park, Ill.
Toledo, Ohio • Chicago, Ill. • Detroit, Mich. • Duluth, Minn.

MANUFACTURING

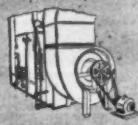
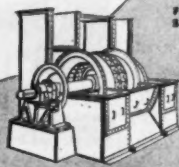
Good at All THREE!

ENGINEERING

APPLICATION

Take any type of air handling or conditioning requirement, and it makes sense to call in the nearest Clarage Application engineer. This man KNOWS his business—can give you expert advice. And back of his recommendations are engineering resources and manufacturing skills unsurpassed in the fan industry. Try Clarage for satisfactory results accomplished MORE economically. CLARAGE FAN COMPANY, Kalamazoo, Michigan . . . Application Engineering Offices in All Principal Cities.

Clarage
—HEADQUARTERS FOR—
AIR HANDLING
AND CONDITIONING EQUIPMENT



Mar.20'48,p40], the railroads do indeed have delays because of severe weather conditions—but at least, the railroads do get through under practically any kind of conditions, many times with a trainload of plane passengers who can't fly because all planes have been canceled—not just delayed.

A. C. KALMBACH

EDITOR AND PUBLISHER,
TRAINS,
MILWAUKEE, WIS.

Airfreight Terminal

Sirs:

Your article, "Garments by Air" [BW—Mar.20'48,p86], on the new Midtown Airfreight Terminal describes our operation very well in most respects.

However, it gives an erroneous impression in two important particulars that your readers should note:

(1) Midtown Airfreight Terminal is not an offshoot of U. S. Packing & Shipping Co., as the article infers. It is a distinctly separate operation, placed under the management of U. S. Packing & Shipping.

(2) Air-freight consolidation is not the new service being offered by the terminal. U. S. Packing & Shipping has been specializing in consolidation for a number of years. It operates under contract with large shippers who benefit through consolidation of their shipments. The terminal, on the other hand, receives air packages—one or more—from any New York shipper for any destination, with no contract required. It assembles these packages for bulk delivery to the airports and thus eliminates the need for single truck pickups in the congested garment district for delivery to outlying fields.

The distinction between consolidation—which is not a new operation—and the new terminal service is very pertinent for shippers.

S. A. KREIS

MIDTOWN AIRFREIGHT TERMINAL, INC.
NEW YORK, N. Y.

Television Screen Size

Sirs:

You carried a photograph of Tradio-Vision, our large-screen television unit [BW—Feb.28'p40]. Unless your correspondent was referring to a set which is currently undergoing development in our labs, his figures on the size of the screen shown in the picture are just a little bit off. The screen was not 18 x 22 feet as reported, but rather 8 x 10 feet.

We've had a lot of explaining to do since you published picture and story.

VICTOR TRAD

PRESIDENT,
TRADIO, INC.,
ASBURY PARK, N. J.



Where stainless steel improves your vision

A high foul — bases full, two men out and two strikes on the batter. From your seat behind the plate you're eager to see the catcher's every move. And you do see — better than ever — at Briggs Stadium, Detroit. You hardly know the Tigers' new backstop screen is there because the mesh has been made wider through the use of strong, rustless ARMCO Stainless Steel.

Every day some manufacturer is finding a new and profitable use for ARMCO Stainless. This handsome, durable steel is already being used for tarnish-proof tableware, sparkling kitchen sinks and cooking equipment, lustrous automobile parts, gleaming streamlined trains and countless other useful products. In whatever form it's used, stainless adds beauty, sales appeal and long life to the product.

ARMCO makes more than 60 grades of stainless steel — including special heat-resisting grades, high-strength types and ultra-thin strip. There's a form for every need — sheets, strip, plates, bars and wire. All are produced by the same careful research and manufacturing skill that developed such special-purpose steels as ARMCO Galvanized PAINTGRIP with its paint-preserving surface . . . ARMCO ZINCGRIP that gives complete rust protection . . . ARMCO ALUMINIZED with its high heat-resistance, and many others.

Buyers accept the Armco triangle as a guide to special quality in steel. That's why so many look for this familiar trademark when they buy. The American Rolling Mill Company, 269 Curtis St., Middletown, Ohio. Export: The Armco International Corporation.



THE AMERICAN ROLLING MILL COMPANY

THE FAMILIAR ARMCO TRIANGLE IDENTIFIES SPECIAL-PURPOSE STEELS THAT HELP MANUFACTURERS MAKE MORE ATTRACTIVE, MORE USEFUL, LONGER-LASTING PRODUCTS

Operate a NEW YORK OFFICE

FOR AS LITTLE AS

\$15 MONTHLY

List YOUR NAME and PHONE NUMBER in the New York Telephone Directory. Enjoy every advantage of a New York Office staffed by able, competent telephone secretaries.

We answer your calls—24 hours a day. We act as your secretary, answer questions, quote prices, note and forward leads, etc.

You have a prominent and distinctive Fifth Avenue address opposite Radio City—ideal for mail and phone inquiries.

For a superior Telephone Message Service of any kind—WRITE TODAY for further particulars.



TELEPHONE EXCHANGE, INC.

J. J. Freke-Hayes, President
595 Fifth Avenue, New York City



**An undesirable mode of combustion in Ramjet burners.*

THAT was a problem handed us by the Navy. On June 8, 1946 the Navy Department announced successful penetration of the sonic range by a Ramjet propelled missile. Our work played a part in this achievement.

Perhaps your company has a rough problem—a problem that's burning up profits, and that can be smoothed out by research.

If you would be interested in knowing more about our facilities and fields of concentration—how we are equipped to solve your problems—clip this reminder and ask your secretary to attach it to your request for brochure, entitled, "An Organization To Serve You."



**EXPERIMENT
INCORPORATED**

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Reminder to write for brochure

"An Organization
To Serve You"

FINANCE

Sell-and-Lease Industrial Deals: A Sampling

Seller	Property	Price	Buyer
Canada Dry Ginger Ale...	plants	not reported	Mutual Life of N. Y.
Consolidated Grocers....	plants	\$ 2,000,000	Northwestern Mutual
Continental Can	plants	10,000,000	Mutual Life of N. Y.
Crown Zellerbach	plants	not reported	Mutual Life of N. Y.
Fruehauf Trailer	plant	407,000	Equitable Life
General Motors	plants	1,132,000	Home Life
Koppers Co.	office bldg.	6,000,000	Equitable Life
Liquid Carbonic	plants	2,700,000	Northwestern Mutual
E. R. Squibb	plant	not reported	Mutual Life of N. Y.
Sterling Drug	laboratory	not reported	Mutual Life of N. Y.
Western Union	office bldg.	12,500,000	Woodmen of the World Life

New Financing Trend

Many companies today raise money by selling real estate, keeping occupancy on long-term leases. Retailers have been biggest sellers, but other industries are using method more and more.

On every side there are signs that a new and fast-growing financing trend is under way today. More and more companies are selling their real estate to tax-exempt institutional investors, then hiring it back under long-term leases.

The movement has grown from swaddling clothes to long pants in just three years, since the end of the war. And businessmen are going to watch its future progress carefully.

• Big Advantage—Perhaps the major reason for the swift acceptance of the idea is that it offers the selling company a way of raising money for expansion or for additional working capital without either (1) borrowing from banks, or (2) issuing new securities.

Life-insurance companies have been by far the largest buyers in such deals. Last year, for instance, they bought \$122-million of nonhousing real estate for investment. And this year their purchases have been at an even greater rate.

• Retailers in the Van—Much of this activity has involved retail-store properties (BW—Mar.20'48,p78). But other industries have recently begun to jump on the tenancy bandwagon. As a result, the life companies' real estate holdings now include a variety of non-store properties (table, above)—including office buildings, laboratories, and many types of manufacturing plants.

Most of the buildings involved in these transactions have been old ones, much-depreciated. Several, however, have been costly postwar structures. And

in a few cases, the insurance companies involved have built new buildings to the specifications of the prospective tenants.

• Lease Terms—Thus far, the pattern followed in all such transactions has not varied much. Purchases have been made at "fair" prices. And the seller has usually been called on to sign a lease running from 20 to 30 years, obligating him to:

OCCUPY the property as tenant for the life of the lease.

TAKE CARE of all real-estate taxes, insurance, upkeep, and maintenance costs for the life of the lease.

PAY an annual cash rental to the new owner large enough (1) to amortize most or all of the cost of the property during the initial term of the lease, and (2) to provide the new owner with a "satisfactory" annual income on his investment.

• Renewal Option—The lease almost always carries a renewal clause. It gives the tenant the option of continuing to use the property for long periods after expiration of the original lease. It also specifies a considerably lower rent for such additional periods—because most of the amortization will already have been taken care of.

In one retail-store deal, for example, the former owner must pay an annual rent equal to 5% of the purchase price for 30 years. After that, he has the option of renewing for another 30 years

at only 3% annually. An industrial plant now leased for 20 years at a 7% annual rental can be rented for the following 20 years at a 1½% rate, and at only 1% annually for another 40.

• **Reasons**—Many corporations report that they have used the sell-lease financing method primarily because: "We are in the business of retailing [or what have you], not real estate."

But that's not the only reason—or even the most important. The bulk of such transactions have been entered into mainly because they have brought sellers new cash—needed for financing expansion plans or inventory purchases, or for bolstering working capital positions sadly depleted by the postwar period's ever-rising operating costs.

On occasion, too, they have helped to improve a seller's financial position by reducing a rather heavy fixed-assets position, cutting down outstanding debt, and removing possible future refunding hazards.

• **No Liability**—Another advantage: sale-and-lease financing isn't reflected on the liability side of a financial statement. No money is borrowed; and accepted auditing procedure today doesn't require a company to set up, as a liability, the contingent rental debt resulting from the deal.

Thus, on its face at least, such a transaction doesn't materially impair a seller's normal borrowing capacity, or his standing as a credit risk. Many financial men feel, however, that some mention of such deals should be made in financial statements, since the rental obligation incurred for the original term of the lease is abnormally high in relation to the value of the property.

There's a tax angle to be considered, too. Annual rental payments under the leases—including what is required for



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REALTOR David B. Gadlow has handled more than \$50-million of sell-lease deals

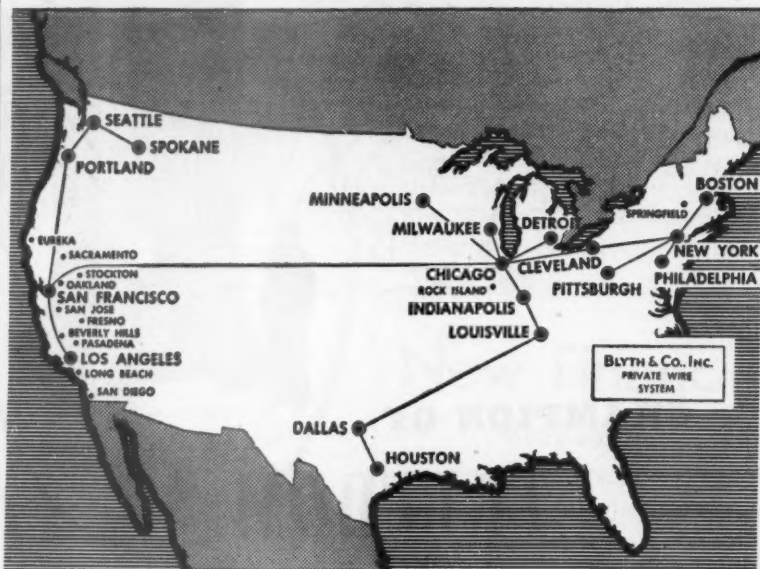
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amortization—are deductible operating expenses for tax purposes. But if borrowing had been undertaken to get the same amount of money, only interest—not the amortization payments—would have been deductible.

• **Why Insurers Like It**—There are several reasons why the trend to such purchase-lease deals has been so eagerly accepted by insurance companies. Among them:

(1) Insurers have been worried for quite a while about the decline in their net return on invested reserves. The figure dropped below 3% for the first time in 1946 (BW—Jun. 14'47, p80); it probably has not improved much since. So they are more than glad to find an avenue of investment that offers considerably higher yields.

(2) Amortization provisions of the leases provide for the return of most of the cash investment in a comparatively short time. After that, the insurance companies still have the income-producing property.

(3) The scheme provides a new kind of outlet for insurance-company funds. Since the life-insurance industry is estimated to have about \$3.5-billion a year available for new investments, that's a big point.

(4) It gives the insurance companies



CAA GETS NEW HEAD

Delos Wilson Rentzel, a veteran airline technician, is President Truman's choice to head the Civil Aeronautics Administration. The president of Aeronautical Radio, Inc., Rentzel is regarded as an expert in the field of airline navigation and communication. He succeeds Theodore P. Wright, who resigned in January to become Cornell University vice-president in charge of its aeronautical research laboratory near Buffalo.

We're Spending One Thousand Million Dollars

to meet your growing needs for oil

THE JOB AHEAD is a *big* job, calling for *big* plans and *big* performance.

Right now Standard Oil Company (New Jersey) and its affiliates are modernizing and expanding production and facilities at the greatest rate in their history. Expenditures for 1947 and 1948 alone come to *one billion dollars*. That's a *thousand million dollars*!

It is reported that the oil industry as a whole will spend *13 billion dollars* over the next few years to do this job.

Why? What's going on?

Last year, this country used more oil than the whole world did in 1939—before World War II.

You're getting *61% more* oil products now than pre-war. You're getting *12% more* than even the biggest war-time output.

3 million more cars on the road than pre-war—buses and trucks up *25 and 30%*! And the average car is using *50 more gallons* of gasoline a year than pre-war!

1,500,000 more homes are oil-heated than in 1939!

Farmers have *doubled* their use of time-saving,

work-saving tractors, trucks, and other equipment since pre-war!

And this is all to the good. It spells progress. It's part of America's better and better living standards.

It's part of the amazing fact that oil has supplied 62% of this country's whole vast increase in use of fuel over the past 20 years—for industry, agriculture, homes, and transportation.

But it also means close figuring between present needs and present capacity. Even today's record output doesn't give the *extra* reserve of available supply we've always had in the American oil business. This will be true until the full effect of the new, expanded facilities is felt.

But the big new supply for your new need is *on its way right now*. Wells being drilled. Refineries, pipelines, storage tanks built. Billions of dollars working as fast and as hard as skill and resourcefulness and experience can make them work.

The better you live the more oil you need. And the oil for your needs is on the way!

STANDARD OIL COMPANY (NEW JERSEY)

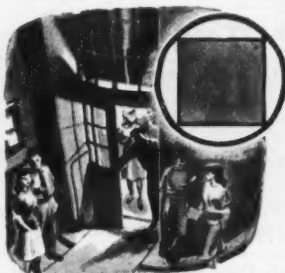
skylines...



True enough, Miami is a playland of golden sunshine and rustling palms. But it's a business town as well. Long air-minded, it has become one of the greatest international airports of the world. Even its skyline has that modern upswept look. Otis is mighty proud of Miami. Why? Seven hundred and seventeen of its eight hundred and sixty-eight elevator installations are by Otis.

SQUARE ELEVATOR IN A ROUND HOLE

Why did Peter Cooper build a round elevator shaft in New York's Cooper Union in 1856? Legend has it, he thought a round car would carry more passengers than a square one. Today, a square elevator is doing the job very nicely. Rather upsetting to the old theory about a square peg in a round hole. What?



COLLECTOR'S ITEM

Can a sudden avalanche of button pushing confuse a modern Otis apartment house elevator? Not in the least. It operates by 'collective control'. It simply 'collects' all the calls. Then it arranges them in proper floor sequence. One run UP or DOWN delivers everybody.

OTIS LIGHTS THE WAY

Nobody, anywhere, anytime ever did it this way before. What? Lighted an Escalator from inside. Otis balustrades are the first to glow with a soft translucent light. Eleanor Le Maire, prominent New York designer and colorist did the glamorizing. Attractive?

Would you like to read the fan mail received by Rike-Kumler in Dayton, Ohio?



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ELEVATOR COMPANY

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far more direct control over their investments than they usually have.

• **State Laws Amended**—Until just a few years ago, state insurance laws forbade life-insurance companies from buying income-producing real estate as investments—except for mortgages and housing projects. But in recent years the industry has been able to persuade more than three-quarters of the states to lift these restrictions.

First to fall in line was Virginia. Since 1942, native-son companies in that state have been able to invest up to 5% of their assets in nonresidential real estate—provided that it is leased to tenants of good standing at rentals high enough to pay off the whole investment during the term of the original lease.

Virginia stood alone for three years. But in 1945, seven states agreed to similar provisions in their insurance laws; three more followed suit in 1946 (including New York, home of four of the Big Five life companies); last year another 27 states assented.

• **Originator**—Although the life insurance companies today are the biggest investors in this type of real estate, few realty authorities credit them with starting off the trend. Most of them say that the man who really started the ball rolling was L. A. Warren, president and treasurer of Safeway Stores, Inc.

Back in 1936, they report, Warren conceived the idea of (1) buying selected sites, (2) building on them the kind of store buildings that specifically suited Safeway's needs, and (3) selling them to private investors who would agree to lease them back to Safeway for a long term.

• **Difference**—But the current trend hasn't followed Safeway's formula exactly. For example, Safeway is said to insist on retaining the right to repurchase any property it sells "at the original sales price, less the amount of amortization paid to the date of cancellation."

Many think this procedure involves hazards. Reason: Some tax authorities hold that this type of lease might be interpreted by the Bureau of Internal Revenue as basically a loan transaction, under which title to the property is merely held by the purchaser as security for performance of the lease. And such a ruling could mean that some of the tax advantages now accruing to corporations who sell their property with no strings attached would not be allowed where repurchase agreements are contained in leases.

• **Contributor**—Another man who is given credit in realty quarters for a big contribution to the present fast pace of the sell-lease trend is David B. Gadow (picture, page 97). A New Yorker by birth, who migrated to San Francisco some 30 years ago, Gadow was one of the first national real estate brokers to

sense the advantages inherent in this type of transaction. Long before most life companies were permitted to take part in such deals, he was busy selling other tax-exempt institutional investors, such as colleges, on the merits of sell-lease transactions.

Early in 1946, Gadlow midwived the year's biggest single Manhattan real estate deal: the sale to Yale University of \$9,350,000 of properties held under rental leases by F. W. Woolworth Co. He has successfully handled more than \$50-million of sell-lease deals in the past year—climaxed by the sale to an insurance company of Western Union Telegraph Co.'s principal office building for \$12.5-million.

NEW INDUSTRIAL TRUST

Last week a new "venture capital" trust, aimed at industrial research and development, came into being. The newcomer: Enterprise Development Co., made up of 16 prominent stockholders representing hundreds of millions of dollars of potential financing.

Endeco will differ from similar trusts in that it will buy established enterprises outright. It will limit itself to metal and mechanical end-product companies.

Negotiations are now going on with companies "in the \$5-million class." Endeco doesn't intend to dislocate any company or its management. Its ob-



PAPER COMMAND SHIFTS

At the annual meeting of the National Paper Trade Assn. in New York last week, the gavel of president went to Ralph G. Luff (right) of D. L. Ward Co., Philadelphia. Here, outgoing president Arthur W. Towne, of San Francisco, hands it to him. More than 500 industry members attended the session.

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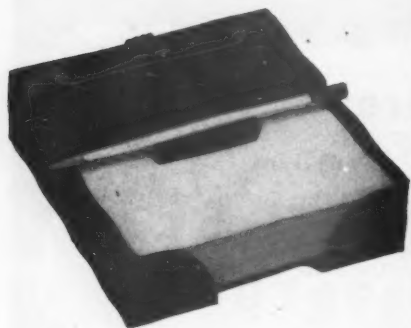
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**If you have, you know that
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Made of lustrous walnut bakelite, with two deep wells for pins or clips, a pencil rest and lots of memo paper, it's the ideal medium for placing your firm name on the desks of executives you wish to reach with your advertising message.

It's a builder of goodwill, too, because it's so useful. It's one of the many good advertising specialties in The EXECUTIVE Line.

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The EXECUTIVE Line now and distribute early
to obtain best results.

If you cannot locate a reputable
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jective is to make investments, the income from which will provide capital for further research and development.

Heading up Endeco will be T. Reed Vreeland, director of Royal Typewriter Co., Charles H. Welling, new products consultant, and Thomas J. Craven are vice-presidents.

Among the stockholders are Clendenin J. Ryan (who recently led a stockholders revolt against International Telephone & Telegraph Co.); Walter C. Teagle, Jr.; J. Sterling Rockefeller; and Godfrey S. Rockefeller. Endeco's by-laws allow for an expansion of the syndicate to include 30 members.

TUCKER ROLLS ON

Despite a rocky road, Tucker Corp. is still bouncing along. Last week President Preston Tucker announced that his company had spent more than \$11-million of the \$17.2-million it had raised through public sale of stock and dealer franchises (BW—Sep. 13 '47, p93). Tucker still thinks he will get his first pilot models out by June.

Most of the money has gone for operations at Tucker's huge Chicago plant. A significant exception was the purchase recently of the \$1.8-million Air-cooled Motors, Inc., plant at Syracuse.

Tucker also wants to buy an \$8-million government-owned blast furnace and by-products coke plant in Cleveland, currently operated by Republic Steel Corp. Republic, too, has a bid in to continue operation of the plant. The War Assets Administration expects to come up with a decision soon. Tucker accused WAA of trying to block his

deal, although he is the highest bidder.

With the Cleveland plant, Tucker figures that his output will reach 1,000 cars a day. Without it, he thinks, he will be held down to around 150.

HUMBLE EXPANDS

The largest producer of domestic crude oil, Humble Oil & Refining Co., will spend \$140-million on expansion in 1948. Humble announced last week that most of the money would go into new wells to boost its output of crude, and into plants to conserve natural gas.

At the annual meeting next month, stockholders will be asked to approve an increase in the stated value of capital stock from \$300-million to \$475-million. (The number of shares will not be increased.) The increase reflects the fact that Humble has greatly increased its fixed assets by reinvesting the major part of its profits.

Humble is a subsidiary of Standard Oil Co. (N. J.), which owns some 72% of the outstanding stock.

HORSE BETTORS TAXED

State legislatures this year spent a good bit of their time, as usual, searching for ways to get more revenue.

At least two of them decided that racetracks were likely sources. This week New Jersey's Gov. Driscoll signed a bill boosting the total bite taken out of pari-mutuel betting from 10% to 12%. (The money is split between the track management and the state.) Kentucky's legislature meantime slapped a 3% state tax on betting.

Broker Has His Ups and Downs During Strike

As the strike of New York financial workers against the New York Stock and Curb Exchanges continued this week, brokers found themselves doing strange jobs.

For example, the job of elevator boy fell to G. M. Minton, Jr., a Curb broker. A member of the exchange since 1929 (he bought his seat for \$190,000), Minton found his day somewhat grueling. Typical schedule: From 4 p.m. to midnight he stood security watch at the exchange. From midnight to 7:30 a.m. he bunked down on the exchange floor. From 7:30 to noon, with time out for breakfast, he ran the elevator again. Only after this did he get around to his day's trading activities.

By midweek, it looked as if broker Minton might have to play elevator boy for quite a while longer. There were still no signs of an early agreement between exchange officials and the striking United Financial Employees (A.F.L.).



ELEVATOR BROKER: G. M. Minton, Jr.

What one organization can

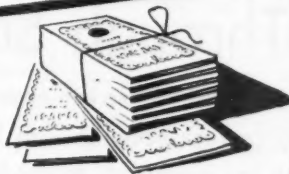
1
construct an industrial plant?



2
assist in its management?



3
finance its construction?



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Missouri does not claim everything. But it may have just the advantages you are looking for in the location of a factory or branch.

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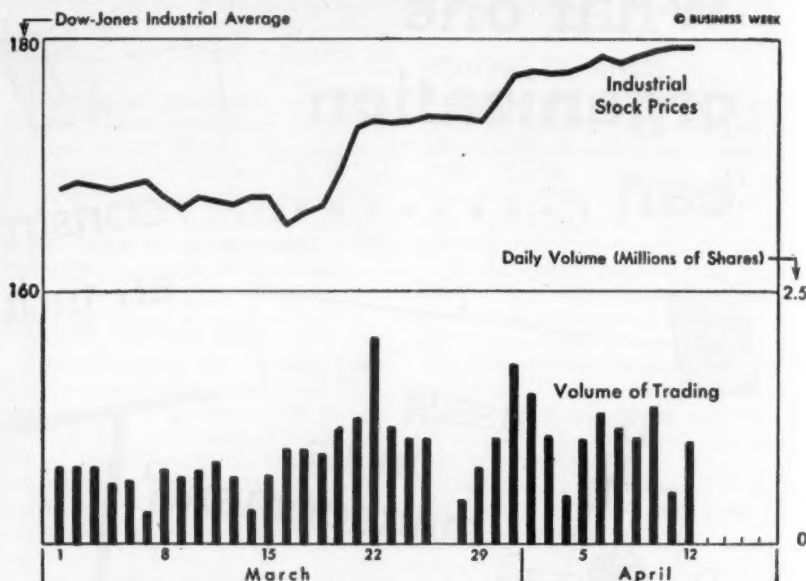
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THE MARKETS



AMOUNT OF TRADING has paced the rise in stock prices. Optimists, who point out that volume contracted on the preceding market decline, see a good omen

Break-Through Signal?

Prices are up and so is turnover. This combination indicates that there are buyers aplenty. The bulls are happy, but the die-hards still wait for industrials to catch up with rails.

For the first time in a long while, there seem to be more bulls than bears on Wall Street. The bet-'em-for-a-rise boys are winning new recruits daily. What's more, many are ex-bears who up to now have been taking short-scale profits or sitting on the sidelines.

• **Expanding Volume**—The market's convincing upswing isn't the only reason for these about-faces. Also at work is one of those technicalities that always weigh so heavily with traders. This time it's an expanding volume on the rise.

Businessmen may not like to take the Street's technical mumbo-jumbo as a

sound basis for planning. Some successful traders don't accept it, either—or only go along part way. Yet few deny that there is something to chart-reading.

• **Getting Off**—After all, there are levels where groups of investors say, "Boy! If she ever gets back up to what I paid, watch me get out." That is one reason for sudden, otherwise inexplicable, bursts of market activity.

When prices and volume go up together, the bulls feel triumphant. They figure that the upswing is attracting more than enough buyers to absorb the selling.

• **Recaptured Ground**—That's the feeling today. The bulls point out that industrial share prices, measured by the Dow-Jones price averages, have risen 14 points (8%) since Mar. 17. Thus stocks have regained about one-third of their loss since the market fell out of bed in September, 1946.

The rails have done even better. They are 14% above the 1948 low and have regained half the ground lost in the 1946 break—and are currently at the best level since that break.

• **Rails Still Lead**—If the industrials could match the rails' performance, the chart readers would have the signal

Security Price Averages

	This Week	Month Ago	Year Ago
Stocks			
Industrial	150.6	150.3	135.3
Railroad	45.8	45.5	41.1
Utility	68.6	68.7	65.5
Bonds			
Industrial	119.5	119.5	119.1
Railroad	106.4	105.7	103.6
Utility	116.4	114.1	113.2

Data: Standard & Poor's Corp.

they've waited for so long. Three times the industrial average has poked up into the 183-186 range; each time it has been promptly smacked down. The rails, however, quite easily punctured last year's top of about 534.

The combination of higher prices on rising volume has the bulls hoping—if not fully believing—that the industrials are going through this time. But before a lot of die-hard bears are convinced, the break-through will have to be both clean and emphatic.

If the industrial average can be pushed through its old hitherto impregnable top now, however, that will definitely be taken as a signal by Dow-Theory followers that a brand new bull market is underway. And such a break-through, optimists think, (judging from the "potential base areas" recently formed) could conceivably send the industrial index to a 250-260 level, or some 40% higher than at present.

How long before a really determined assault will be launched on the old high still remains to be seen. Meantime even the most bullish Wall Streeter wouldn't be surprised to see any day now some reactionary tendencies put in a temporary appearance while the market "consolidates" its recent gains.

• **Muddling Through**—And incidentally, nonstriking stock exchange personnel, aided by fill-ins from member firms, have handled this expanded volume.

New-Issues Volume Rises

Public offerings of new corporate securities in March added up to around \$380-million. That's two and one-half times the February total. And its about \$30-million greater than in January. Due to the spurt last month, the volume of such financing in this year's first quarter was some 18% above 1947.

Even more heartening, a fair volume has come along thus far in April. There's a good-sized chunk now in the works, too; much of it will hit the market during the coming weeks. Thus, underwriters are feeling a bit more cheerful at the moment than for some time past.

• **Headaches**—But underwriters still have more than enough headaches left.

For one thing, equity financing operations still are few and far between, despite the sharp price uptrend in the stock market in recent weeks. That hurts. For new stock issues normally bring higher underwriting profits than bond deals.

Most of 1948's new bond offerings have been utility issues. That's not because there's a shortage of industrial new-financing deals. There are plenty of those. But the insurance companies are handling most of them, unfortunately for Wall Street, via the private-sale route.

It's true that new bond issues have shown a gradually improving price undertone in recent weeks. Trading-market action of recent new issues confirms this (BW—Mar. 20 '48, p103). Relatively few of them sell today at levels below their original offering prices.

• **Price Resistance**—The new-issues market, however, hasn't become a one-way street by any means. There are still pretty clearly defined resistance levels. And when yields on new offerings drop below the point judged "satisfactory" by important buyers, trouble starts to pop. Because of that factor, underwriters have often had to make last-minute changes this year in agreed-upon offering prices—to avoid getting tangled up in "selling jobs."

The spread between the prices at which underwriters buy new bond issues and the offering prices continues very narrow, too. That means that one flop, or a near-flop or even a last minute price adjustment can quickly wipe out much of the profit scored on several out-the-window deals.

• **Columbia Gas Issue**—Consider, for example, the recent offering of \$45-million new 25-year Columbia Gas & Electric Co. debentures.

The issue was purchased at competitive bidding by a prominent underwriting group as 34s at around 100.55% of par. It was offered to investors at 101.25, to yield 3.18%. This yield, however, seemed to many buyers to be too low. So the offering quickly turned into a selling job. And even after a week had been spent on it, fully a third of the bonds, according to Street reports, still remained in the hands of the underwriters.

Underwriters today aren't inclined to shelve any unsold portions of new offerings on the chance that they can be worked off later at a profit, or on a break-even basis. Instead, they terminate syndicate agreements as quickly as possible and let the bonds find their own level in the secondary market. That happened in this case. And the new Columbia Gas issue promptly dropped in over-the-counter trading almost a point under its original offering price—well under its actual cost to the underwriters.

• **Blame**—Competitive bidding is being blamed for much of the new-issues market's present worries. One particular target is the small-size utility offerings (\$10-million or under) recently appearing in such volume. Many syndicates are being formed to bid for them. Result: Competition for them has become so keen, the Street reports, that even the winner can't expect to reap much profit from handling them. At least one of the bigger underwriting houses is said to have decided not to participate in any more of these deals unless there is a special reason for doing so.



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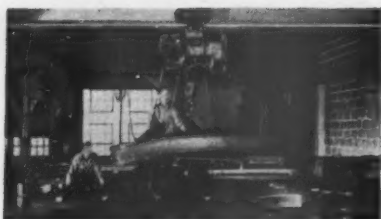
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LABOR



PICKETING (here at Cudahy's Kansas City packing plant) gave way to peace talks

Meat Strike on the Wane

C.I.O. union loses its gamble for face-saving injunction as supplies continue fairly normal. Result: contract talks start up again. But this time, management's hand is stronger.

C.I.O.'s United Packinghouse Workers this week lost its big gamble: The government did not enjoin the union's month-old strike under the Taft-Hartley "national emergency" clause.

As a result, representatives of major packers and the union drew up their chairs to the bargaining table in Chicago again. Their aim: to work out a wage formula to end the walkout of 60,000 to 80,000 C.I.O. meat packers. The prospects that the strike will subside into a settlement were favorable.

• **Reverse Stand**—Normally, unions are strongly against the use of the injunction in labor disputes; management is for it. This time the positions were reversed. The reason was obvious as the strike faltered: Management wasn't suffering any major damage; but the union felt increasing pressure from a back-to-work movement.

Hence a unique situation faced a T-H board of inquiry which conducted hearings into the background of the meat dispute:

Management told the board that no injunction would be necessary. The work stoppage wouldn't involve public health and safety. Adequate supplies

of meat would be kept flowing to retail outlets (last week's production, for example, was estimated at 75% to 80% of normal).

The union couldn't openly plug for an injunction, but it very significantly did not oppose one. An order to end its strike would have come as a face-saver for the union. It could then have bowed before a court back-to-work order. There would have been no danger of a drawn-out strike—and quite possibly a broken one:

• **No Crisis**—Under the T-H law, the injunction is supposed to be a last resort. The test is whether a national emergency actually exists. The board of inquiry found that there was no real meat crisis. Acting on this finding, President Truman decided not to ask for an immediate injunction. Instead, he urged packers and the union to try some more bargaining.

They agreed to resume talks where they were broken off when the union issued its strike call last Mar. 16 (BW-Mar.20'48,p104). But this time, management held a stronger hand.

• **A "Substantial" Offer**—Company negotiators took heart from another board

of inquiry finding: that the packers' 9¢ hourly raise offer—accepted already by A.F.L. and independent unions—was a "substantial" one. What's more, the board said that the packers reached that 9¢ figure through sound steps—including the consideration of "important criteria in determining wage settlements . . . so used for many years."

The C.I.O. union originally demanded 29¢ an hour more. It based this figure on the amount needed to bring packinghouse workers into line with a Bureau of Labor Statistics estimated budget for city workers. The board of inquiry commented that this "is one of the first wage cases in which a trade union has relied so directly on a budget approach." The approach is a valid one, the board held. But it is one that requires preliminary "negotiations and agreement on broad policy questions." Such a question is "whether income from earnings should be computed on the basis of 2,080 hours (52 times 40 hours a week) at straight-time, without incentive earnings or 'fringe' benefits, as the union contends, or on the basis of earnings from overtime plus incentive earnings and 'fringe' benefits, as well as straight-time earnings."

UNION LOSES 2-YEAR STRIKE

The Redwood District Council of Lumber & Sawmill Workers (an affiliate of the A.F.L. carpenters union) decided to call it quits this week.

After 27 months of abortive picketing (BW—Jan. 11 '47, p. 86), the union ended its strike against nine redwood producers in Humboldt and Mendocino Counties, Calif.

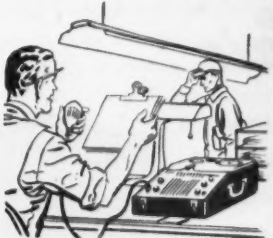
When the strike began on Jan. 14, 1946, the issues were the wage-rate and the union shop. Employers were quite prepared to make wage concessions; but they objected strongly to the union-shop demand.

It was a difficult strike for the union to police. Separate picket lines had to be established at each sawmill and logging camp. And the lumber workers—originally 5,000 strong—couldn't see the union shop as a knock-down, drag-out issue.

When the Taft-Hartley restrictions on the union shop became effective last Aug. 15, the union's doom was sealed. For by then, thousands of strikers had filtered back to their jobs, and the union's chances were slim to poll a big enough vote in favor of the union shop (a majority of all eligible workers is needed).

The redwood producers increased wages voluntarily by 5¢ an hour the day the pickets were withdrawn. This brought the minimum to \$1.45.

In Oregon, last week, C.I.O. lumbermen won a 12½¢ increase, bringing their minimum to the same level.

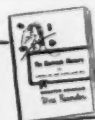


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NLRB on Move

New cases raise issue of board's jurisdiction over retail and other trades. Test: Is the business in commerce?

Is the National Labor Relations Board getting set to assert its jurisdiction over retail trade—and other businesses that it passed over during the Wagner act decade?

That question weighed on the minds of retail and other employers this week. Reason: An NLRB decision ordering a collective bargaining election for 55 mechanics employed by a retail truck sales company.

The decision reversed a former NLRB policy of keeping out of "situations that have an essentially local flavor." And its general wording made it applicable in any other retail trades case that might come before the board.

• **Commerce Is Crux**—The truck company case was only one. But add it to a number of others, and you glimpse a growing concern in NLRB over jurisdictional bounds. These were extended by the Taft-Hartley act to cover all employees engaged in any "business which affects commerce." NLRB interprets this to mean that it can act even though "activity may be purely local, so far as the actual performance of labor is concerned."

The case in question involved the International Assn. of Machinists and the Liddon White Truck Co., at Nashville, Tenn. I.A.M. wanted a bargaining election among mechanics. The company protested to NLRB. Its grounds: It was "simply a local enterprise not in interstate commerce." The board decided, unanimously, that the company actually does business of interstate character—hence is subject to T-H. The board split, however, over whether it should take jurisdiction in so local a case. The majority decision: It should.

The minority (Board Chairman Paul M. Herzog, and Abe Murdock) objected to any extension of NLRB power. They felt that NLRB has enough on its hands without taking on more cases.

• **Purely Local**—In another jurisdictional case, the board met with a setback when it tried to apply the T-H law to the construction industry (BW—Feb. 21 '48, p104). In Denver, U. S. District Court Judge J. Foster Symes ruled that NLRB couldn't intervene in a case involving A.F.L. unions and Gould & Preisner Electrical Co. NLRB had asked for an injunction to halt a secondary boycott. The judge refused to issue a writ because "construction of houses and other buildings . . . constitutes a purely local project and [one] intrastate

T-H GUIDEPOSTS

Management, looking to NLRB and the courts for slants on the Taft-Hartley law, had three major new decisions to guide it this week:

- Pension plans were placed into collective bargaining in a decision against the Inland Steel Co. The T-H law requires bargaining "in respect to rates of pay, wages, hours of employment, or other conditions of employment." The board held that a demand for a pension plan is valid under this clause. This makes refusal to bargain on pensions an unfair labor practice.

- Craft union elections aren't mandatory, NLRB ruled in another case. This ruling may curb A.F.L. efforts to split up C.I.O. bargaining units in steel and other industries (BW—Jan. 17 '48, p84). The board turned down petitions by A.F.L. bricklayers for craft elections at the National Tube Co., Lorain, O., and the American Rolling Mills Co., Middletown, O. Reasons: A study of the industry's bargaining history and of the integration of jobs convinced the board that the industrial unit shouldn't be broken up.

- The third decision held that injunctions against unfair labor practices can be issued only on petitions by NLRB. It came from the U. S. Circuit Court of Appeals in Richmond, Va. C.I.O.'s right-wing textile union had bypassed NLRB in getting a court order against the Amazon Cotton Mills Co. (BW—Feb. 28 '48, p92). NLRB intervened with an appeal. Its reason: Opening the federal courts to direct action by unions or employers would muddle administration of the T-H act, aid unqualified unions.

in character and does not affect interstate commerce."

• **NLRB's Grounds**—NLRB disagrees with the Denver court. Its reasons for acting on construction industry cases:

(1) It contends that Congress, through the T-H law, gave NLRB authority to act in jurisdictional disputes "conspicuously characteristic of the building trades." It feels it has a congressional mandate to move into the construction industry.

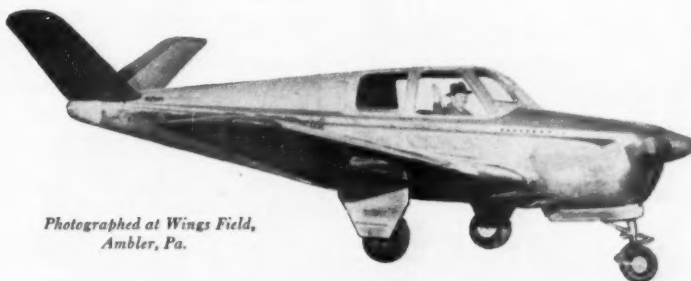
(2) NLRB asks: What's the difference between construction and, say, re-

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tail trade—where there is legal precedent for NLRB jurisdiction? In the past the board has dealt with businesses selling even a small volume of goods—or buying substantial quantities—across state lines. It argues that construction materials are very definitely in interstate commerce.

NLRB will use these arguments in appealing the Denver decision.

• **No Circumvention**—In special cases, NLRB has a vital object in taking on

broad jurisdictional powers: to keep unqualified unions from getting around the T-H law. One way of ducking T-H is to deal with state labor relations boards that don't require non-Communist affidavits.

Under the Wagner act, NLRB and state boards had working agreements for handling cases. Normally, local cases went to state boards. Now the T-H law provides that NLRB must take juris-

THE LABOR ANGLE

EXACTLY A YEAR AGO this week, the House of Representatives passed H.R. 3020 by an overwhelming vote. It was sponsored by the representative from New Jersey who presided over the Committee on Education & Labor. On the same date, a bill, S. 1126, was put before the Senate by the senior senator from Ohio. Thus the Taft-Hartley Act was being born.

To a man, the country's labor leaders, large and small, prophesied that all who love freedom in America would come to rue the day. Employers took a directly contrary view: A new and better era was dawning.

Seldom in this nation's legislative history has a measure evoked such expressions of frantic fear or high hope as the T-H law. It was as if some great hammer-blow had cleft the body politic; there were two distinct sides and no middle.

From the perspective of the spring of 1948, one might wonder why. For it seems apparent that we have neither perdition nor Utopia. What's more, there's some question whether a sizable step in either direction has been taken. Any detailed summary of experience in the Taft-Hartley era is still too preliminary to mean much. But a very general stocktaking is possible.

ONE OF THE FEW CONCLUSIONS which can be stated pretty firmly is that labor's wild alarms have proven baseless. The charge of "slave labor" is revealed as nonsense. No bona fide unions have been crushed. Organized labor's ranks are no thinner than before passage of the law.

It's also plain that the basis on which our labor relations rest has not altered. Competition between unions and management over rates of pay, working conditions, union security, etc., remain, fundamen-

tally, a contest of economic power.

Jurisdictional strikes (in Hollywood), illegal walkouts (the printers), Communist control of unions (a dozen C.I.O. organizations), national emergency strikes (coal), closed shops (New York retail establishments) have not been stopped by the law. A big gap exists between the act's intent and its operation.

Nor has the law effected yet any of those internal reforms in labor organizations which its advocates hoped for.

Meanwhile, several important industries have had to face new problems because of the law. Electrical manufacturing, shipbuilding, machinery manufacturing see their traditional bargaining structures threatened by raiding craft groups. The problem of having to litigate as well as negotiate is not uncommon. And it's a rare employer who can escape the question of what tactics his union will next devise to frustrate the law's intent.

Many of the problems that the T-H law in operation turns up are the inevitable result of imposing a new set of regulations on something as dynamic as the labor front. As the administration of the law shakes down, at least some of the frictions now felt might decline. But there is always a danger in expecting too much. That's why it may be wise to accentuate the negative.

THIS REALIZATION that the law has a darker side should make employers think twice before they go into an uncritical defense of the Taft-Hartley act as ideal.

Employers may some day want to prove that the law would serve the public interest better if it were amended. So they would be unwise to put themselves on record 100% for the law just because the unions are 100% against it.

diction unless the state boards operate under "law and precedents . . . not inconsistent with the federal law."

• **Commerce Again**—So far, few states come up to the T-H requirements. So the only way state boards can assume jurisdiction—and the only way unqualified unions can take cases to state boards instead of to NLRB—is to show that "commerce" isn't affected.

Early this year, the International Assn. of Machinists asked NLRB to hold a bargaining election among shop employees of the Red Arrow Lines—run by the Philadelphia Suburban Transportation Co. C.I.O.'s Transport Workers Union also wanted to bargain for the group. Because the C.I.O. union isn't qualified with NLRB, it asked the Pennsylvania Labor Relations Board to poll the workers.

• **Holding On**—In the past, NLRB would have yielded to the state board. Now it's making a fight to hold on. It doesn't want unqualified unions to get the idea that they can circumvent the T-H law by going to state boards.



PICKETING UNION OFFICES

A.F.L. faces were red last week as 15 Seattle union offices were caught on the wrong end of this labor dispute.

Women clerical employees in the Seattle Labor Temple are members of A.F.L.'s office workers' union. Their patience was exhausted by fruitless bargaining on contract demands—principally for a 35-hour work week and more union security. Result: They struck and took up picket signs.

Many of the union officers set up temporary quarters outside the Labor Temple until the strikers could be placated. Seventeen other unions with offices in the Labor Temple weren't affected by the walkout.

Butter in the well . . .



Better IN THE KITCHEN

The early settlers kept their few perishables cool in wells and springhouses. Deep in the insulating earth, butter and cheeses were relatively safe from spoilage.

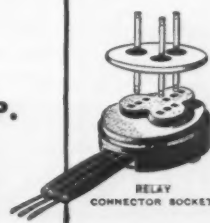
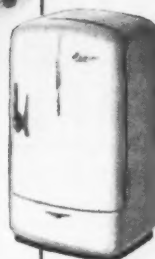
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Daily Worker

Val. XXV, No. 56 New York, Thursday, March 18, 1948 (16 Pages) Price 5 Cents

A Fake Crisis To Alibi War
An Editorial
PRESIDENT TRUMAN has confronted the world with a strictly fake, insubstantial crisis. The United States still is at peace.

TRUMAN DEMANDS

Delegates Blast Truman War Policy
Despite the fact that foreign policy came up late on the last day of the conference, delegates to the meeting of the Office and Professional News Workers' Union (U.E.) in New York City, Tuesday, March 17, 1948, blasted Truman's war policy. The delegates also criticized the administration's handling of the Marshall Plan and the U.S. position in Europe.

'We Don't Want To Go to War For Wall St.'
The U.E. delegates expressed their opposition to Truman's war policy, stating that they do not want to go to war for Wall Street.

The Marshall Plan—What are the Facts?
The President of the ILWU discusses the difference between the CIO and ILWU approaches to relief and aid for needy European countries . . . The CIO has been giving guarantees that any aid will be used for the benefit of the workers.

TRUMAN AND THE ROAD TO WAR
—SEE PAGE 12

Union Voice

By Harry Bridges
Part I.
The business of the United States sending food to needy European countries is a big issue these days. It's known as the Marshall Plan. What is the Marshall Plan? Do you, as an ILWU member, know enough about it to be for it or against it, to discuss it in a union meeting, and to vote for it or against it? Is it a plan to send American food to a relief basis to people in Europe? Is it a plan to help American employers and big business make foreign investments and loans under conditions that require needy countries to agree to give up their national sovereignty? Just taking what knowledge you have of the Marshall Plan, consider the following facts:

way of controls to prevent speculation, further inflation, or rising prices.
As a condition to receiving our domestic and foreign resources in expanding American activities, an expanding American economy is required, with its creation in new industrial capacity wherever they are necessary.
The aid program should be administered by men who are not

THE DAILY WORKER'S LINE is echoed throughout the leftist labor press

Anti-ERP Tactics Spell Trouble

Left-wing C.I.O. papers' attacks may mean dissension within unions and some production trouble in key industries.

Executives who deal with leftist unions have double trouble. They must:

(1) Keep up with the economic thinking of their unions in order to be set for contract bargaining, and

(2) Keep tab on what the unions are saying and doing on political and social issues.

• **Echoes**—This week, point No. 2 came to the fore. Reason: Leftist C.I.O. papers have begun to bang away at the Marshall Plan. The Daily Worker—official Communist organ in New York—sounded the first note. Immediately it

was echoed by publications of the leftist unions, including:

The Office and Professional News (United Office & Professional Workers); the U.E. News (United Electrical, Radio & Machine Workers); the Dispatcher (Harry Bridges' International Longshoremen's & Warehousemen's Union); Union Voice (published by New York City left-wing Wholesale & Warehouse Employees locals).

• **Internal Feuds**—For management, the significance of this anti-ERP stand is clear. Fuel is added to spreading right-

left fires in unions. Management suffers from a slump in morale during the flareups. Labor relations with a union shot through by factional feuding get touchier.

And there is a broader, potential importance: What's being said in the left-ist papers today can bring tomorrow's troubles for Marshall Plan production. Either by coincidence or by strategy, some pretty dark labor clouds are now gathering in several industries important to the anti-Communist program—such as the farm equipment industry and electrical manufacturing. Unions creating this cloud are in the bloc that has been decrying this country's "war policies." They could become an effective labor bottleneck for Marshall Plan production.

Rubber Union Rift

Coming contract talks may help determine whether conservative faction will retain control of U.R.W.

Rubber contract talks may do more than fix the amount of the third-round pay hike, if any, this year. They may also determine whether Leland S. Buckmaster (picture, page 114) will keep his job as president of C.I.O.'s United Rubber Workers after September.

• **Rift Widens**—U.R.W. will serve its 1948 contract demands shortly after Apr. 19 (BW—Apr. 10'48, p103). To management, union negotiators will present a unified front; but in U.R.W. meetings, there will be sharp divisions on policy. A split in the union leadership has been developing steadily during the past six months; it can be expected to widen over varying definitions of valid wage-settlement terms.

The showdown may well come at U.R.W.'s annual convention in Omaha next September. And it will differ from factional tangles in some other C.I.O. unions, where Communist-anti-Communist feuding has been heavy. None of Buckmaster's opponents is seriously suspected of Communist sympathies. The rubber workers' internal squabbling is strictly over union issues.

• **Cautious Stickler**—Buckmaster became U.R.W. president when Sherman Dalrymple gave up the job in 1945. A former school teacher and later an Akron tire-builder, Buckmaster is quiet, soft-spoken. He's unusually conservative for a top industrial unionist; some think him even more cautious than C.I.O.'s Philip Murray.

One point on which he is a stickler: Locals must live up to the terms of their contracts. He has authorized few strikes. He feels strongly that U.R.W. can gain

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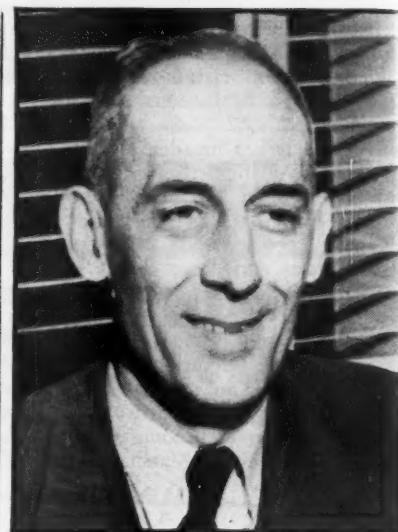


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U.R.W. PRESIDENT Leland S. Buckmaster: His big job now is to keep his job

more at the bargaining table than through economic pressure. Result, rubber management respects him. The union's rank-and-file is pretty generally for him, too.

But opponents say he's too "soft," that the union needs more aggressive leadership to push it ahead. It's this question of militance that accounts for the union's factionalism.

• **Opposition Lineup**—N. Harry Eagle, U.R.W. organizational director, is the spearhead of the anti-Buckmaster faction. The group is certain to run a candidate for presidency at Omaha—and may unseat Buckmaster. Eagle himself isn't likely to be the man; George R. Bass, 280-pound president of the 16,000-member Akron Goodrich local, may be the choice. Bass has been active in rubber union politics, first opposing Dallymple; then Buckmaster.

Others in the anti-Buckmaster lineup: H. R. Lloyd, vice-president; Charles E. Lanning, secretary-treasurer; George Milliron, president of the big Akron Goodyear local, and virtually all of the union's 15-member executive board.

• **Open Break**—The Buckmaster-Eagle split broke wide open at the 1947 convention in Boston. The Eagle faction tried to push through three amendments to the constitution, but couldn't get a two-thirds vote in each test. One change would have made the organizational director's job elective. He is now named by the president, subject to approval of the executive board. Another would have set up an executive officers' committee with authority to decide union policy. The third would have created a new job—a second vice-presidency, which was designed for Bass.

The Eagle group didn't run a candidate against Buckmaster last year; it showed its strength, however, by elect-

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ing all of its candidates for the executive board and re-electing Lloyd over a Buckmaster man.

The feud flared up again in January. Buckmaster refused to reappoint Eagle, in the "best interests of the union." He picked, instead, Rex C. Murray, head of U.R.W.'s big District 1. The executive board turned Murray down; it recently voted (12-1) to let Eagle keep the organizing job until Buckmaster names a successor the board will approve. It's hardly likely that anyone recommended by him will satisfy.

• **Veteran**—Eagle has been active in the U.R.W. since it was founded 14 years ago. He was the first vice-president in 1934 when the union was the National Rubber Workers Council and when it switched from A.F.L. membership to C.I.O. In 1936, Eagle became a district representative. He held that post until 1943, when the organizational director job was created.

Currently, he heads a staff of seven district and 50 field representatives. These are the international headquarters' link with U.R.W. locals in the United States and Canada. The Buckmaster forces say Eagle is using the field staff as a political machine. Present objective: to unseat Buckmaster.

• **Victor, But**—In the latest test of strength, Buckmaster won an important victory. His entire slate of officers beat out pro-Eagle candidates in a District 1 meeting in Buffalo. The district is the largest in U.R.W., comprises five states, including Ohio.

But Akron observers still think the odds are against Buckmaster's re-election. The pending wage talks could have a definite bearing on his future.

Building Arbitration

Machinery Starts May 1

The building industry's new labor-management machinery for settling jurisdictional disputes officially goes into action May 1. Guiding it will be the man whom the White House called on to outline the program—John T. Dunlop, associate professor of economics at Harvard and a consultant to the Council of Economic Advisors.

• **Hot Job**—Dunlop was named last week by joint conferees for what can be one of the biggest and hottest arbitrator jobs in the country. His task: to keep down feuds among the industry's 19 building trades unions—each militantly jealous of its craft.

Full-time offices will be opened shortly in the A.F.L. building in Washington. Dunlop will divide his time between his duties at Harvard and as the building trades' jurisdictional umpire. There are no disputes awaiting him; but there are already 30 requests

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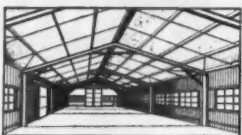
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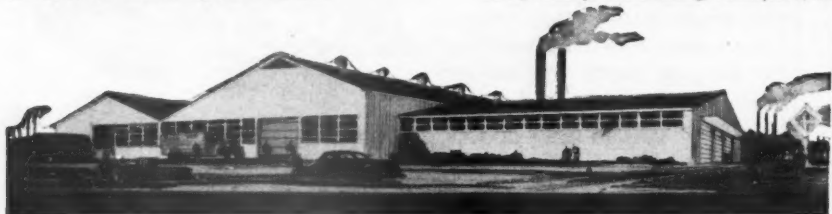
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BUILDING TRADES UMPIRE: Job under joint plan goes to John T. Dunlop

for decisions on questions of jurisdiction over new materials.

The new program was worked out to trim the need for National Labor Relations Board intervention in building trades affairs (BW—Feb. 21 '48, p104).

• **The Real Workers**—A board of trustees will do most of the real work. It will receive cases and decide whether a new issue is involved; if not, the case will be ended at that point by applying a former jurisdictional decision. If the issue is new, the case will go to a five-man joint board for a binding decision.

Dunlop will serve as chairman of the board of trustees, and will be the impartial umpire and fifth member of the arbitration panel.

• **Formal Approval—But**—The program was formally approved by the Building Trades Dept. of A.F.L. in February. But approval wasn't unanimous—a fact that could snarl operation of the machinery in short order. Both the electricians and plumbers dissented. The former warned that "we go wherever electricity goes." They stressed that they would—if necessary—pull out of the Building Trades Dept. to safeguard jurisdictional rights.

A.F.L. leaders don't take the dissension too seriously, though. They expect all 19 of the building trades unions to go along with the plan.

The Pictures—Acme—19 (bot.), 51, 106; British Combine—127; Ewing Galloway—122; Harris & Ewing—19 (top); Int. News—21, 23, 124; Press Assn.—22, 56, 58, 98, 102, 111; Reni Photos—cover, 116; World Photographic Service—101.

INTERNATIONAL OUTLOOK

BUSINESS WEEK
APRIL 17, 1948



The U. S. will salvage something out of the Bogota Conference after all.
Moscow can gloat, of course, over the insurrection in Colombia. The conference almost literally blew up.

But the scare at Bogota puts Sec. Marshall in a position to clinch:

(1) His proposal for a concerted Western Hemisphere stand against Communist infiltration;

(2) His plea that U. S. aid is needed first of all in Europe to meet the threat of direct Russian aggression.

•
This week the ERP nations will set up a permanent European Economic Cooperation Organization.

Its minimum functions: weighing and reporting on progress toward recovery goals; reviewing further needs for U. S. aid; calling conferences to settle joint production, manpower, financial problems.

EECO could easily be made an international economic parliament to handle:

(1) Allocation of ERP funds among the 17 member nations;

(2) Unified purchasing;

(3) A treaty with the U. S. covering Western Europe's obligations—including how to spend the local currency derived from the sale of ERP goods.

Europe's foreign ministers will have something to say on EECO's powers. But the real decision rests with ECA chief Paul Hoffman (page 6).

•
You can expect creation of a West German state any time now.

Moscow's moves in Berlin have made this inevitable.

The U. S. and Britain have been preparing for the step. They've already authorized:

(1) An adjustment in wages and prices in Bizonia as forerunner of currency reform;

(2) Employer-union negotiations on wages, which will give unions a chance to regain lost prestige;

(3) Admission of Bizonia into Western Europe's system of monetary clearing pacts;

(4) Barter agreements, including an Italian deal which will bring Germany \$10-million worth of foodstuffs.

•
U. S.-British cotton talks have produced these results:

(1) Lancashire promises a steady increase in its purchases of American raw cotton as Britain's dollar shortage eases. American quality cotton is needed for Lancashire's specialty products.

(2) British cotton men will recommend immediate opening of the sterling area to Japanese textiles—so long as payment can be made in sterling.

(3) A joint recommendation to limit Japanese textile capacity to 3.5-million spindles, or less than one-third of prewar.

•
Japan is already selling its textiles without demanding payment in dollars. This is being done under a new Commodity Credit Corp. ruling which U. S. officials in Tokyo have just pushed through.

The Netherlands East Indies have made the first deal, paying half in dollars and half in guilders.

Similar transactions will soon be made with other Far Eastern countries. The plan is to dispose of 300-million yards now warehoused in Japan. Stocks

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK
APRIL 17, 1948

have reached this figure because of a prior CCC ruling that sales could be made only for dollars.

The U. S. now has a contract with Belgium for the entire Belgian Congo uranium output.

Until recently, the U. S. and Britain shared Congo's output. American experts are on the ground helping with development work.

Australia's steel industry is set for a major expansion.

Broken Hill Proprietary plans to build a hot and a cold strip mill. Pittsburgh's United Engineering & Foundry Co. will probably design the project, provide some of the equipment.

To supply the mill, B.H.P. will nearly double its ingot capacity at Port Kembla, New South Wales. (Capacity now is about 700,000 tons annually.)

The new plant will be the first in Australia to produce tinplate, badly needed by the canning industry. It will also produce sheet for automobile manufacturers, as well as strip and plate for other industries.

British and American rubber companies are dickering with the Ceylon government for permission to set up a rubber plant in this new British Dominion.

The project looks sound enough. Ceylon produces good quality natural rubber (shipments reached 110-thousand tons during the war). And there's a fair-sized local market.

Last year the country spent over \$2-million for imported auto and bicycle tires and quality rubber goods. At the moment it has only a handful of small-scale factories, including two retreading plants.

Current notes on business abroad:

Ford Motor will make its long-projected light car in France. Production is scheduled for late this fall. The car will have a 66-h. p. V-8 engine, 105-in. wheelbase.

American Cyanamid may soon complete a hookup with Montecatini, Italy's biggest chemical company. It would involve a general agreement for the exchange of patents and know-how.

Redonda Tile of California has licensed Australian Consolidated Industries (glass and ceramics combine) to manufacture its glazed wall and floor tiles. A.C.I. has set up a subsidiary, Redonda Tile Co. (Australia) Proprietary, Ltd., to handle production.

National Acme has renewed its licensing agreement with BSA Tools, Ltd. The British company will continue to manufacture National Acme machine tools for five years.

Procter & Gamble has bought an oil refinery and shortening plant in Mexico City, has formed a Mexican Corporation to produce cooking fats and oils. This is P&G's first move south of the Rio Grande.

Prescott Co. of Menominee, Mich., is now building one of the world's biggest sawmills on an order from France. The mill is slated for the Cameroons, French colony in West Africa; will be located on the Makoda River. Total cost is over \$1-million. The project is part of France's plan to build up its African empire (BW-Mar.27'48,p117).

Westinghouse International is supplying \$2-million worth of equipment for the Jihjutin power plant on Taiwan (Formosa). Westinghouse has granted the Taiwan Power Co. a two-year credit to cover the cost.

BUSINESS ABROAD

Exchange Tangle Hurts Japan

Lack of official yen-dollar rate hampers trade relations with foreign importers. Occupation economists have come up with a plan; but Gen. MacArthur wants to wait a while before adopting it.

TOKYO—One big barrier to economic stabilization in Japan is the lack of an official exchange rate for the yen. Economic experts in SCAP (Supreme Command for the Allied Powers) now have a plan ready. Prodded by Gen. MacArthur, they worked on it for months. But when they presented it to the general, he changed his mind; he told them that the time was not yet ripe for tying the yen to the U.S. dollar.

• **Why It's Needed**—Nevertheless, most observers think that some sort of foreign-exchange plan will have to be set up soon. Until it is, they say:

FOREIGN-TRADE procedures, now horribly complex, can't be simplified.

A STABLE ECONOMIC RELATIONSHIP between Japanese production and world markets, in which Japanese goods must be sold, cannot be created.

LONG-TERM FOREIGN INVESTMENT in Japan is out of the question.

TOURIST-TRADE inauguration must be postponed.

U.S. BUSINESSMEN and occupation personnel must pay through the nose for Japanese goods and services (or, as many are now doing, go into the black market for yen).

• **Economic Ills**—Economic troubles in present-day Japan include: a strong inflationary trend, shortage of food, shortage of industrial raw materials, low real-property valuations, low wage scales, extreme imbalance of international payments accompanied by a shortage of foreign credits. So the problem before the economic planners in SCAP's Economic & Scientific Section (ESS) is to get an exchange system that will not aggravate present ills.

Overvaluing the yen, for instance, would price Japanese exports out of world markets. That would be suicide for a country that needs every cent and sou of foreign exchange it can get. Undervaluation, on the other hand, would speed up inflation.

• **Formula**—Here's how ESS wants to arrive at a yen-dollar exchange rate: Indexes of Japanese and U.S. prices would be calculated, with prewar prices in each country considered as 100. Then the present ratio of the two indexes

would be multiplied by the prewar exchange rate. At present price levels, this would work out to about 150 yen to the dollar.

But, ESS warns, a single flat rate would be worse today than no rate at all. Reason: The terrific variation among Japanese industries in the ratio of production costs (in yen) to export value created (in dollars). Special rates must be set up, ESS says, for any industry in which this ratio varies by more than 10 yen, plus or minus, from the base rate.

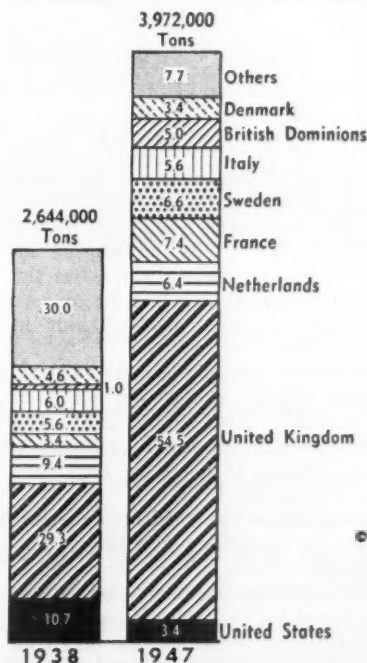
• **Dangers**—About 55% of 1948 exports, ESS estimates, will be produced

at yen costs less than 140 to the dollar. If the exchange rate were fixed at 150 without exception, either the yen price of these goods would have to be increased or the dollar price decreased. Increasing the yen price would pump an inflationary 15-billion yen into the Japanese economy; cutting the dollar price would clip \$90-million in vitally needed foreign exchange.

As ESS interprets it, about 30% of 1948 exports will be produced at yen costs higher than 160 to the dollar. So, with a fixed rate, to sell the goods abroad, the enterprise would have to be subsidized.

On the import side, present prices average only 55 yen to the dollar. A single rate of 150 would raise the cost of imports planned for 1948 by 25-billion yen. That would lead to a big jump in production costs, which would raise prices of both domestic and export goods.

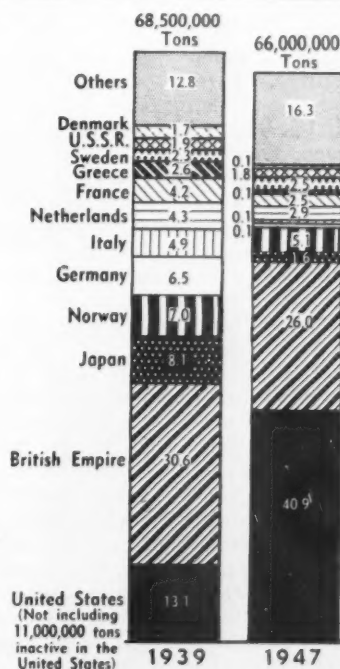
• **Interim Measure**—Hence, ESS views the establishment of a single, fixed rate as distinctly a long-term goal. But even the planned commodity rate (single rate with exception for different com-



WHO'S BUILDING SHIPS
Percent of world tonnage under construction

The U. S. came out of World War II with the world's largest merchant fleet. And it still operates about 41% of the world's tonnage—despite 11-million tons lying idle in the nation's backwaters.

But now many American passenger vessels and freighters are becoming outmoded. In 1947 the U. S. did almost nothing to modernize its fleet, while booming shipyards in Europe—especially Britain—were getting foreign fleets back to prewar levels with new



WHO HAS THE SHIPS
Percentage distribution of world tonnage

tonnage (BW—Sep. 20 '47, p. 20). For security's sake, President Truman asked Congress last week for \$100-million in the coming year as a starter on what may be a \$1-billion program. On the docket for the long run are 50 new passenger ships (easily converted into speedy troop transports), and more than 100 high-speed tankers. This should please U. S. shipbuilders and shippers, but may be a blow to ERP nations. Subsidized U. S. competition cuts their shipping revenues.

modities) will take about two months to set up after a final decision is reached.

In the meantime, ESS would like to institute a financial rate for tourists, foreign traders, foreign service companies (shipping, airline, and insurance), missionaries, and occupation personnel. Such a rate would give businessmen a much-needed break; at the same time it would deal a severe blow to the black market in foreign exchange.

• **Black Market in Yen**—The present official military conversion rate is 50 yen to the dollar. But military payment certificates (occupation scrip) bring 220 yen to the dollar in the black market; U. S. greenbacks bring considerably more. American cigarettes are worth 200 yen a pack. Many Japanese merchants are more than glad to barter goods for smokes, sugar, or coffee.

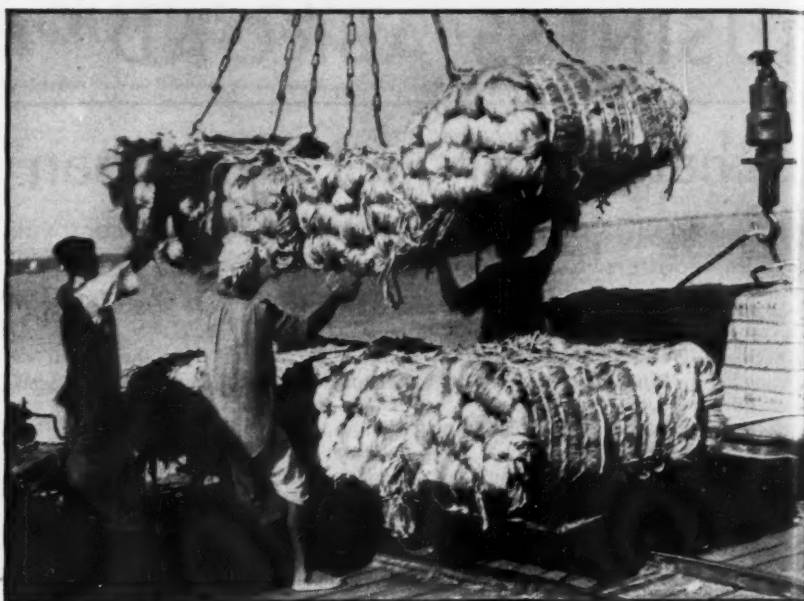
This practice actually discriminates against traders and businessmen, because their business expenses are subject to official scrutiny; hence they can't go to the black market. Scrutiny comes about because all funds transmitted through banks must be paid at the official military rate, unless the recipient is entitled to hold military payment certificates.

Establishment of this financial rate would also remove a big barrier to tourist trade. ESS doesn't want tourists to come in at all if there is any danger that the tourist business will get off to a poor start. It figures the gripes will be long and loud if the first tourists find they have to pay \$150 for a vase that is worth less than \$50. And most tourists won't be around long enough to find out about the cheaper (black-market) method of buying yen.

• **On the Plus Side**—The long-range advantages of getting the exchange question settled are obvious. With an exchange system, Japanese seller and foreign buyer will be able to contract directly, and know what they are talking about on price. Now they are forced to deal indirectly, through Boeki Cho (Japan's Board of Trade). It makes two separate contracts: one in yen with the Japanese manufacturer; the second in dollars or other satisfactory foreign currency with the buyer. And all such contracts must be approved by the Foreign Trade Division of ESS.

Even more important, Japan will finally be able to correlate its economy to that of the rest of the world. Japanese manufacturers, traders, and other businessmen today have little knowledge of outside business conditions, markets, or prices. The large proportion of products which are sold at high yen-to-dollar ratios is an indication of this ignorance.

All in all, there are few arguments against establishing this sort of exchange system. But Gen. MacArthur so far has not given the official nod.



JUTE EXPORTS: Pakistan sets sights at 3-million bales a year by 1950-1951

Pakistan Bids for Industry

Big construction program awaits final O.K. Hydropower gets top priority. Foreign capital, despite some difficulties, will help in financing. So will stepped-up exports, mainly of jute and cotton.

KARACHI—Blueprints for Pakistan's industrialization program (BW—Sep. 13 '47, p. 13) have been completed. United States and British capital will be invited to lend a generous hand—but the Americans and British will be able to participate as senior partners only in certain fields.

Committees of businessmen and government officials worked out details of the program. The central and provisional governments now have their recommendations in hand for final overhaul and approval.

• **The Agenda**—The construction agenda shapes up something like this:

Machine tools. There are to be at least three factories, backed up by two iron foundries, two steel foundries, two malleable iron foundries, two plants for steel forgings, and an electric steel plant.

Metalworking factories. Plans call for the manufacture of agricultural implements (four plants); sewing machines (two new ones, an old one to be expanded); electrical equipment (one); and bicycles (one). The machine tool plants will provide the equipment.

Textiles. The goal would be 2.5-million cotton spindles within 10 years. Of these, 1.5-million would be installed in the next five years. This would enable Pakistan to process a good part of its excess cotton at home. Also on the

docket: several small woolen projects including six spinning and three weaving mills. In addition, the plan calls for installation of 15,000 jute looms in the 10-year period.

Fertilizers. An ammonium sulphate factory would be set up to make use of the 70-million-ton gypsum deposits in the Kewra salt range.

Chemicals. There would be three electrolytic caustic soda plants, two soda ash plants, five sulphuric acid plants, five superphosphate plants; also two soap and glycerine factories, two new oil-pressing plants, and three oil-refining and hydrogenation plants.

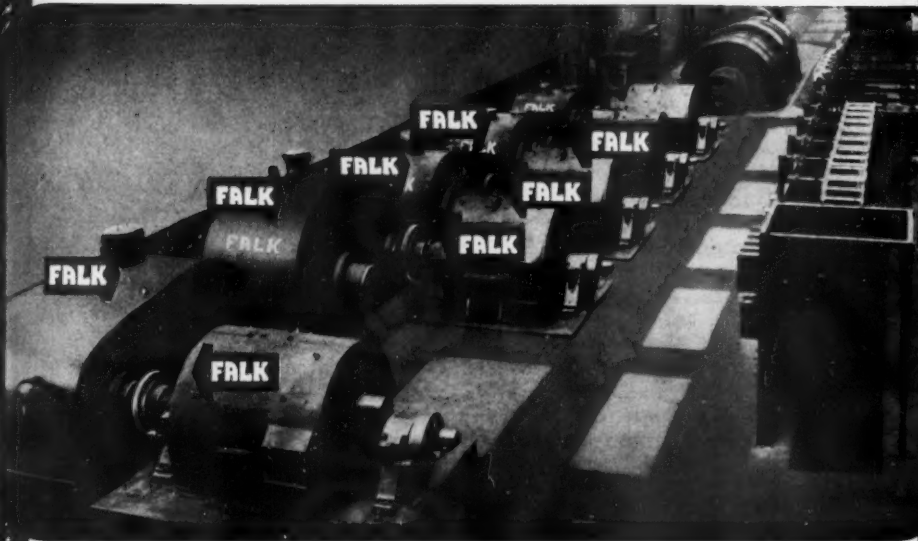
Miscellaneous. Plans also call for eight sugar factories, four starch plants, 15 tanneries, three cement factories, four hollow-arc glass factories and plate glass unit, a paper factory, and a match factory.

• **Priority**—Hydroelectric projects have the highest priorities on the construction list. Pakistan's present power capacity of 69,800 kw. (excluding factory-generated power) is woefully inadequate for industrial expansion. Building more steam units would require costly imports of coal. So the government will install hydroelectric facilities to bring the country's power capacity up to 500,000 kw. in the next five to seven years. Hydroelectric power facilities will be state-owned—along with railways, mun-

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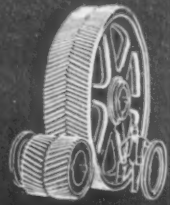
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SOME TYPICAL FALK PRODUCTS



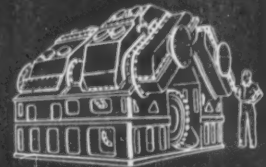
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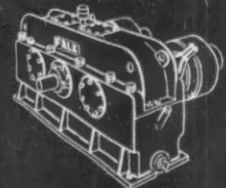
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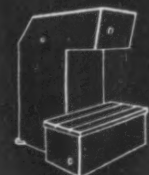
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tions plants, and the manufacture of communications equipment.

• **Financing**—Getting the cash for all this work doesn't strike Pakistan planners as an impossible task. They count on these factors:

(1) A lot of Moslem capital has gravitated from India to Pakistan. More money is forthcoming from public loans. The first of these were floated last February. Four issues for varying periods and ranging up to 3% interest attracted \$52-million in the first month, and more than \$30-million since. Much of this investment represents switches from Indian bonds. Still, officials feel that the response is encouraging.

(2) Pakistan is pushing exports to get foreign exchange. The country's chief revenue earners are jute and cotton.

By June, this season's exports of jute will have topped half a million bales. By 1950-1951, the schedule calls for an annual export of 3-million bales.

More Pakistan cotton is coming onto the world market—much to the chagrin of cotton-short India. Shipments abroad have recently averaged 30,000 bales a week. Since September, the country has exported more than 650,000 bales (a notable—but small—deal was closed with Russia recently).

(3) Britain has just released £20-million (\$80-million) from Pakistan's sterling balances. Karachi can convert 16% (\$13-million) of this into hard currency in the current half-year.

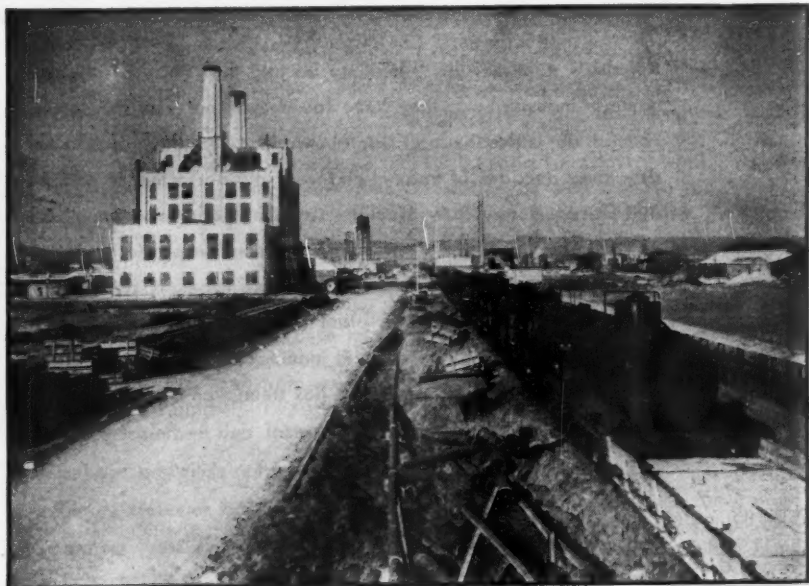
(4) But the greatest spur to Pakistan's industrialization would be an influx of private capital. The question is whether the Pakistan government has left the door open wide enough to foreign investors.

The government's new policy stipulates that certain of the new industries must be backed with 51% native capital; all others with 30% native capital. Among the first group are textiles, cement, minerals, tanneries, chemicals, glass, and fish and food processing. The second group includes the machine-tool and metalworking industries.

The government admits that it may be willing to grant exceptions all along the line. What's more it has promised a "reasonable" transfer of profits and no meddling in existing foreign setups.

• **Partition Still Hurts**—There will be no real progress toward industrializing Pakistan until the wounds of partition have healed. That goes for India's hopes for industrial development too (BW-Apr. 10'48, p112). Each country has declared the other "foreign" for trade purposes, and is levying import and export duties on a wide range of products. An overall trade agreement still seems a long way off.

But the bitterness is abating. Swaps of Pakistan rice for Indian wheat, Pakistan cotton for Indian textiles are being made. Pakistan deals for Indian coal and steel are in the offing. At least both sides seem to be making some effort to live together.



French Refinery Back to Prewar Production

French industry is struggling back to prewar production to fulfill her share of the ERP bargain. This refinery on the Seine near Rouen is a good example. Burned out and looted during the war, the refinery has re-

covered its prewar capacity of 800,000 tons of crude oil. In 1946 the plant used Venezuelan crude to make road oils and greases. Last year the plant was reconverted for crude oils from the Middle East.

Mexican Oil Pact

Cities Service to develop million acres. Company will pay exploration costs; Mexico will keep title to all oil produced.

The first significant break in the impasse between Mexico and U.S. oil companies came this week. W. Alton Jones, president of Cities Service Co., and Antonio J. Bermudez, director of Petroleos Mexicanos (the government agency), signed a contract for the development of more than a million acres of oil lands near Tampico in north-eastern Mexico.

Reciprocal Benefits—The deal loosens a deadlock that was clamped on 10 years ago when the Mexican government took over control of all oil properties. Benefits should work both ways: The U.S. should get sorely needed crude, while Mexico's strained economy profits from release of a great natural resource.

Leases on the million acres were held by a Cities Service subsidiary long before Mexico nationalized ownership of oil deposits (in 1938). While other U.S. companies wrangled—and finally accepted a scale-down of their claims—Cities Service sat tight on this batch of leases.

Terms—Details of the new contract are not disclosed. But insiders say: (1) Mexico will retain ownership of any oil discovered; (2) Cities Service will be allowed to buy a large percentage for the U.S. market; (3) the company will pay exploration costs.

Mexican insistence that U.S. oil companies take all the drilling risks has been a major drawback to negotiations. By accepting this provision, Cities Service takes a bold gamble—since oil has not yet been found on its acreage. But it is no long shot; in the area are oil fields that have produced 2-billion bbl. of crude.

In Line?—Cities Service's move raises a big question: Will rival companies now swallow their objections and come to terms with the Mexican government?

Germans Set Up Plans to Export Volkswagen

The much-publicized Volkswagen—the Nazi People's Car which never got to the people—may yet become a common sight on European highways.

The management of the Volkswagen plant, in the British zone, has already worked out distribution plans in two European countries:

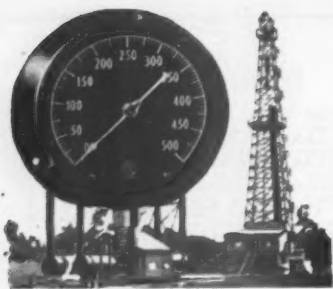
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BOMBAY LETTER

BOMBAY—It used to be a tradition in India to express disapproval of the British "Raj" by taking a razor blade to the upholstery of railway trains. The other day an American correspondent rode into this city in a newly upholstered compartment. By chance he rode out in the same one that night. During the day someone had cut the seats to ribbons.

The atmosphere in India today is just about what it was before Britain pulled out. Only now there is no well defined target for public wrath. Everyone is blaming everyone else, getting farther apart instead of closer together. The trouble lies in the government's inability to create a Utopia for the Indian people—the Utopia that Indians were led to think would come with independence.

TRUE, the government has taken steps to curb bewilderment and frustration in the business community. The new industrial policy announced last week leaves a bigger share of the economy to private enterprise than most businessmen had expected. It also clears the way for foreign capital by relaxing the rule that foreigners must accept a minority position in new enterprises (BW—Apr. 10 '48, p. 112.)

The new ruling in foreign capital came as a rude shock to those who pipe-dreamed of dictating to American firms. But to others it made good sense. A member of the Bombay Chamber of Commerce said: "A great deal of nonsense has been talked . . . about the terms on which [foreign capital] should be 'allowed' into India. The problem, in fact, is how to arrest the flow of foreign capital . . . from India. This has during the last two or three years assumed alarming proportions."

The government's new program isn't going to be an irresistible lure, of course. Political disintegration is creating so much chaos in India that foreign investors aren't likely to move in until things settle down a bit.

All of India's political parties carried the flag for independence. All, except the Moslem League, united in the All-India Congress. As long as the British remained in India, Congress acted as a one-

party unit. But now that the crusade has been won there is no new rallying point. Bit by bit various factions are splitting away from the national administration set up by the Congress party.

ONLY a few weeks ago the Socialists broke away completely from the Nehru government. The move came after the party had seated 26 of their 48 candidates in the Bombay city elections. The Socialists accuse the Congress of being the stooge of "vested interests"; of skidding down the same trail to corruption as the Kuomintang in China. And they seem to make their charges stick simply because the government, so far, has been long on words and short on action.

Right now the Communists couldn't win an important election—although they have a few members in most of the legislatures. But in troubled areas they can stir up a disturbance disproportionate to their numerical strength.

Their traditional tool, the mass of workers, is particularly formidable in India where labor has been exploited for hundreds of years. Communist pie-in-the-sky demands have won over many a worker in various Red-sponsored strikes.

THE Congress' answer to Communism's appeal is repression. Bengal has formally outlawed the Communist party. Bombay Province is extending "security" measures—enforced by such methods as search and arrest without warrant, imprisonment without trial. On Apr. 3, police in East Punjab arrested 69 Communists; this action touched off a Communist-led sympathy strike of 10,000 textile workers in Bombay.

The policy of the repression has not stopped at tracking down Communists. The government has decreed that all acts tending to undermine the authority or the good name of the government should be punished. As a result, for weeks it has been illegal for any Indian publication to refer to the investigation of Gandhi's assassination. No one knows what is going on. The few papers that have broken the official silence have either been shut down or heavily fined.

D'Ietren Freres will handle sales. Volkswagen will export at least 1,000 of its pint-sized autos to Belgium this year. Standard price: \$800 f.o.b. the German border.

IN THE NETHERLANDS, Pon Automobile Co., of Amsterdam, will act as agent.

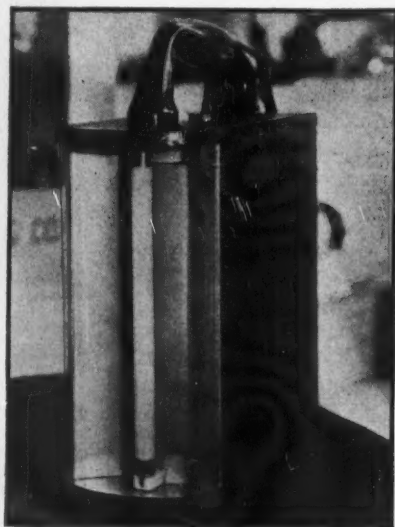
Volkswagen officials are also developing similar agencies in other European countries.

• **German Deal**—The contract with D'Ietren Freres was handled entirely by the sales manager of the Volkswagen plant at Wolfsburg (near Brunswick). It was sponsored by the Joint Export Import Agency which consists of British and U. S. occupation officials whose job is to stimulate German foreign trade (BW—Feb. 7 '48, p106).

Choice of the Belgian and Dutch distributors for the Volkswagen was made jointly by JEIA and a German committee that included officials of the German Economic Administration and Herr Koch, export sales representatives of the Volkswagen plant. This procedure was in keeping with JEIA policy of transferring all foreign trade operations directly to bizon businessmen.

• **Production**—Since the end of the war, more than 20,000 Volkswagen have rolled off the assembly line at Wolfsburg. Almost all have gone to fill occupation requirements and basic civilian needs in Germany.

Current output is about 1,000 a month. The plant is tooled for a peak rate of 2,500 monthly by the end of this year—but this target depends on adequate supplies of steel and textiles.



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British inventiveness has come up with a fluorescent handlamp—the "Carrilite." A 9-in. tube operated by one 40-volt battery gives 100 hours of continuous light. Maker is Brooks & Bohm of London.

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THE TREND

Wage Structure—With a Fringe on Top

As the third postwar round of wage bargaining gets under way, what does the national wage structure look like, as compared with the prewar structure? It has, as we see it, four notably different characteristics:

- (1) A much higher altitude.
- (2) A greater money spread in the range of wage rates.
- (3) Some shift in the relative positions of different groups of wage earners.
- (4) A large and fancy fringe on top.

The first three characteristics are brought out clearly by the tables on page 26. It is with the fourth characteristic, the fringe, that we propose to concern ourselves.

The probable size of third-round wage adjustments is discussed almost exclusively in terms of the change in cents per hour in the wage rate. But such calculations actually deal with only part of the story. For in addition there are the fringe adjustments. How large they can bulk is indicated by John L. Lewis' newly won pension plan.

The term "wage fringe," to indicate an addition to a worker's compensation beyond the regular hourly wage, started during the days of the War Labor Board. So did much of the substance of the wage fringe. For example, it became a standard practice of the board to order the payment of one week's vacation pay after one year of service, and two weeks of vacation pay after five years of service, to any group of workers that went after it. Such an arrangement increased the compensation of many workers decidedly without involving any increase in wage rates. For a board charged with stabilizing wages, such an arrangement had obvious attractions.

Since the War Labor Board quit business, inflation has continued to exert pressure for higher wages. Following a well-grooved line of reasoning, many employers have preferred wage-fringe increases to wage rate increases—on the ground that they are easier to remove if and when deflation makes that necessary.

How Big Are They?

So far as we can tell after making a diligent search, there are no reliable general statistics of wage-fringe adjustments. In fact, there is nothing like complete unanimity on just what the fringe constitutes. For example, some include shift-premium payments in the fringe. Others say they are so definitely a part of a wage structure that they don't belong there.

But enough has been done to indicate that the wage fringe has become a substantial part of the total compensation of wage earners. For example, there's a study that the Automotive & Aviation Parts Manufacturers' Assn. has just completed: Preliminary results indicate that wage-fringe payments cost that industry an average of almost 7½¢ an hour above direct wages for every hour worked in 1947. Assuming a work-year of 2,000 hours,

that would be more than \$148 per worker per year. To that must be added legally required payments (old age and survivor's insurance, workmen's compensation, unemployment compensation); they add 4.845¢ an hour, or \$97 a year, to per-worker costs. They make the total \$245 per worker per year.

This is how the association arrived at that total:

	Average Cost (in Cents) Per Man-Hour Worked in 1947
Vacation payments (includes paid vacation and bonus-in-lieu-of-vacation)	4.498¢
Christmas or other special bonuses; profit-sharing payments, etc. (does not include regular incentive or production bonuses which are a part of direct wages)	0.267
Pay for holidays not worked	1.902
Payments to union officials for settling grievances or negotiating agreement	0.169
Voluntary or agreed-upon payment (employers' share paid for pensions; life, accident, medical care, hospitalization, or sickness insurance; also noninsured payments for these purposes; separation pay)	*0.591
Total fringe payments	7.427
Legally required payments (old-age and survivor's insurance, workmen's compensation, unemployment compensation)	*4.845
Grand total	12.272

*Employers' share only

The speed with which the fringe has become a formidable element in the nation's wage bill is indicated by some partial figures on supplementary wage payments compiled by the U. S. Dept. of Commerce. These payments, which include employer contributions to social insurance, employer contributions to private pension and welfare funds, compensation for injuries, and a few other minor items, have grown from 1.2% of the nation's wage bill in 1929 to 4.8% in 1946.

If a full array of fringe payments—for vacations, paid holidays, shift differentials, call-in, lunch and rest periods, travel time, clean-up time, laundry and special clothing, individual industry or company welfare and pension funds, etc.—were included, fringe payments might aggregate 10% to 12% of the nation's payroll.

In one way, it might be a lot smarter in the long run for management to try to trim down the fringe and get a lot of these payments taken care of by basic wage rates. It would, at least, give both individual managements and industries a much clearer idea where they stand, wagewise.

But we don't propose to press this highly contentious position here. We do insist on this however: A person who thinks that so-called basic wage rates are telling him anything like a complete or accurate story about wage costs is kidding himself. The wage structure has a very fancy fringe on top.

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